



3 1761 117019125

**Government
Publications**

HANDBOUND
AT THE

UNIVERSITY OF
TORONTO PRESS

CA 1

Government
Publications

Z 1

60002

Government
Publications

1748



THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

2

SUPPORTING SERVICES FOR GOVERNMENT

- 5: REAL PROPERTY
- 6: PURCHASING AND SUPPLY
- 7: TRANSPORTATION
- 8: TELECOMMUNICATIONS
- 9: PRINTING AND PUBLISHING
- 10: THE "MAKE OR BUY" PROBLEM
- 11: LEGAL SERVICES





Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761117019125>

Canada, Royal Commission on Government Organization

VOLUME **2**

**SUPPORTING SERVICES
FOR GOVERNMENT**

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION



818962



ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

J. GRANT GLASSCO

F. EUGÈNE THERRIEN

WATSON SELLAR

To His Excellency
THE GOVERNOR GENERAL IN COUNCIL

May It Please Your Excellency

We, the Commissioners appointed by Order in Council dated 16th September, 1960 to inquire into and report upon the organization and methods of the departments and agencies of the Government of Canada and to make recommendations concerning the matters more specifically set forth in the Order in Council dated 16th September, 1960: Beg to submit to Your Excellency the following Reports.

Wm. H. Morris
CHAIRMAN

CHAIRMAN

Henry Thorne

Watson Sellar.

October 1, 1962



CANADA

Elizabeth the Second

BY THE GRACE OF GOD *

OF THE UNITED KINGDOM,

CANADA * AND HER OTHER

REALMS AND TERRITORIES

Queen

HEAD OF THE COMMONWEALTH

DEFENDER OF THE FAITH *

P. K. Turner

DEPUTY GOVERNOR GENERAL

Endrieger

DEPUTY ATTORNEY GENERAL

TO ALL TO WHOM THESE PRESENTS SHALL COME
OR WHOM THE SAME MAY IN ANYWISE CONCERN,

Greeting:

WHEREAS pursuant to the provisions of Part I of the Inquiries Act, chapter 154 of the Revised Statutes of Canada, 1952, His Excellency the Governor in Council, by Order P.C. 1960-1269 of the sixteenth day of September, in the year of Our Lord one thousand nine hundred and sixty, a copy of which is hereto annexed, has authorized the appointment of our Commissioners therein and hereinafter named to inquire into and report upon the organization and methods of operation of the departments and agencies of the Government of Canada and to recommend the changes therein which they consider would best promote efficiency, economy and improved service in the despatch of public business, and in particular but without restricting the generality of the foregoing, to report upon steps that may be taken for the purpose of

- eliminating duplication and overlapping of services;
- eliminating unnecessary or uneconomic operations;
- achieving efficiency or economy through further decentralization of operations and administration;
- achieving improved management of departments and agencies, or portions thereof, with consideration to organization, methods of work, defined authorities and responsibilities, and provision for training;
- making more effective use of budgeting, accounting and other financial measures as means of achieving more efficient and economical management of departments and agencies;
- improving efficiency and economy by alterations in the relations between government departments and agencies, on the one hand, and the Treasury Board and other central control or service agencies of the government on the other; and
- achieving efficiency or economy through reallocation or regrouping of units of the public service.

and has conferred certain rights, powers and privileges upon Our said Commissioners as will by reference to the said Order more fully appear.

NOW KNOW YE that, by and with the advice of Our Privy Council for Canada, We do by these Presents nominate, constitute and appoint J. Grant Glassco, Esquire, of the City of Toronto, in the Province of Ontario; Robert Watson Sellar, Esquire, of the City of Ottawa, in the Province of Ontario; and F. Eugene Therrien, Esquire, of the City of Montreal, in the Province of Quebec, to be Our Commissioners to conduct such inquiry.

TO HAVE, hold, exercise and enjoy the said office, place and trust unto the said J. Grant Glassco, Robert Watson Sellar and F. Eugene Therrien, together with the

rights, powers, privileges and emoluments unto the said office, place and trust of right and by law appertaining during Our Pleasure.

AND WE DO hereby direct that the scope of the inquiry shall not extend to the institution of Parliament.

AND WE DO hereby authorize Our said Commissioners to exercise all the powers conferred upon them by section 11 of the Inquiries Act and be assisted to the fullest extent by government departments and agencies.

AND WE DO hereby authorize Our said Commissioners to adopt such procedure and methods as they may from time to time deem expedient for the proper conduct of the inquiry and sit at such times and at such places in Canada as they may decide from time to time.

AND WE DO hereby authorize Our said Commissioners to engage the services of such counsel, staff and technical advisers as they may require at rates of remuneration and reimbursement to be approved by the Treasury Board.

AND WE DO hereby require and direct Our said Commissioners to report their findings to Our Governor in Council, making interim reports as progress is made, with the final report to be made within a period of two years.

AND WE DO hereby require and direct Our said Commissioners to file with the Dominion Archivist the papers and records of the Commission as soon as reasonably may be after the conclusion of the inquiry.

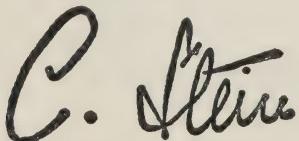
AND WE FURTHER appoint J. Grant Glassco, Esquire, to be Chairman of Our said Commissioners.

IN TESTIMONY WHEREOF We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

WITNESS: The Honourable Patrick Kerwin, Chief Justice of Canada and Deputy of Our Trusty and Well-beloved Major-General George Philias Vanier, Companion of Our Distinguished Service Order upon whom We have conferred Our Military Cross and Our Canadian Forces' Decoration, Governor General and Commander-in-Chief of Canada.

AT OTTAWA, this Twenty-seventh day of September in the year of Our Lord one thousand nine hundred and sixty and in the ninth year of Our Reign.

By Command,



UNDER SECRETARY OF STATE

Published by
ROGER DUHAMEL, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, Canada

© Crown Copyrights reserved

Available by mail from the Queen's Printer, Ottawa,
and at the following Canadian Government bookshops:

OTTAWA

Daly Building, Corner Mackenzie and Rideau

TORONTO

Mackenzie Building, 36 Adelaide St. East

MONTREAL

Aeterna-Vie Building, 1182 St. Catherine St. West

or through your bookseller

A deposit copy of this publication is also available
for reference in public libraries across Canada

Price \$6.00

Catalogue No. Z1-1960/4-2

CONTENTS

GENERAL INTRODUCTION	13
5 REAL PROPERTY	19
6 PURCHASING AND SUPPLY	71
7 TRANSPORTATION	145
8 TELECOMMUNICATIONS	211
9 PRINTING AND PUBLISHING	271
10 THE "MAKE OR BUY" PROBLEM	311
11 LEGAL SERVICES	363

The series of reports

SUPPORTING SERVICES FOR GOVERNMENT

is continued in Volume 3:

12 ECONOMIC AND STATISTICAL SERVICES

13 PUBLIC INFORMATION SERVICES

GENERAL INTRODUCTION

In the administration of departmental and agency programmes, a wide range of supporting services is required. Buildings and works must be constructed and managed, supplies and equipment procured and their use controlled, people and materials transported, information and decisions transmitted, and large quantities of matter printed. The organization and management of these services is examined in the following reports, together with certain staff functions—economic and statistical services, legal advice and assistance, and information services.

Each of these services is treated in a separate report, and in each the recommendations are designed to meet the particular circumstances. However, these supporting services, as a general rule, show certain common characteristics in their relationship to the primary tasks of the government. Some of these are noted in the report of your Commissioners entitled *A Plan for Management*, but should be restated here in the present context.

First, although the supporting services are essential to the administration of programmes undertaken by the government for the benefit of the public, to departmental administrators they are only a means to an end. Provided the administrators are able to control the level and quality of the supplies and services their programmes require (subject to normal budgetary limitations and any general standards by which they may be governed), the actual management of the supporting services may be left to others. Moreover, there are very real benefits to be achieved by relieving the administrators

of programmes from the task of managing the supporting services they require, and creating specialized organizations for this purpose.

The rising scale of government operations has meant that the practices adopted by government in accommodating and equipping itself may have a significant impact on the Canadian economy and thus become, in themselves, matters of public interest. Consequently, consolidation—or a high degree of co-ordination—of a supporting service under central direction may be warranted to ensure that this public interest receives adequate recognition.

Consolidation may also be justified on grounds of economy. This may arise because of the economies of scale available, for example, in bulk purchasing, or through the pooling and more flexible use of buildings and equipment. Where specialized skills are widely employed, pooling arrangements permit not only the economic deployment of the specialists, but the creation of more attractive professional career opportunities.

Finally, the development of specialized organizations to provide common supporting services may serve to relieve programme administrators from chores that are only incidental to their primary responsibilities and may constitute unwelcome distractions. For smaller operating units, the existence of specialized service agencies may provide the best means of obtaining services of the standard required for fully effective operations.

In circumstances such as those outlined, a possible solution might lie in the creation of an omnibus servicing organization, providing all or many of the supporting services needed in common. Such an organization was created by the United States Government in 1949, as a result of the first "Hoover Commission". This agency, the General Services Administration, provides a wide assortment of services, including:

- The procurement and maintenance of real property.
- The purchase, supply and maintenance of materials and equipment in common use.
- The purchase or supply management of services such as transportation, freight traffic, telecommunications systems, and certain public utilities.
- The transfer within the public service of property surplus to the needs of particular agencies, or its disposal to the public.
- The promotion of proper records management, including the operation of archives and records centres.
- The purchase and maintenance of stockpiles of strategic materials.

Since its establishment, the General Services Administration has relied on the quality of service offered, rather than on any compulsory power, to promote the use of its services by departments and agencies of the United States Government. By delegating substantial powers to its ten regional offices, it has been able to respond promptly and effectively to the needs of government operations throughout the country. Because of its apparent success, it attracted the attention of your Commissioners at an early point in this inquiry.

In all the circumstances, however, it does not appear that the needs of the Canadian Government can be met economically or effectively by a single organization on the American pattern. It must be recognized that each region of the General Services Administration serves a segment of the United States Government equal to, or exceeding in size, the entire federal public service of Canada. If the American agency were scaled down to the level of Canadian needs, much of its effectiveness would be lost. Under Canadian conditions, some of the services provided by the General Services Administration would require at least an equivalent degree of decentralized administration; others can be managed effectively only on a centralized basis; still others can best be combined, for administration, with other activities which, in the United States, are excluded from the terms of reference of the servicing organization. Moreover, it must be noted that the combination of activities assigned to the General Services Administration is based on administrative convenience, rather than on any essential relevance of one service to another; for example, the operation of vehicle pools has little or nothing to do with strategic stockpiles or records management.

It is concluded, therefore, that the supporting services required by the Canadian Government must be organized in quite a different manner, designed to meet the circumstances of the Canadian situation. In the following reports no uniform pattern emerges, but the variety of solutions is not haphazard. There is an underlying consistency in the adherence, in every case, to certain common principles foreshadowed in the first report.

- First, within the limits of any general standards applicable to the government as a whole, the user department should define its needs and bear the cost of the services received. Only in this way can those charged with the administration of government programmes be held fully responsible for their performance.
- Second, organizations providing supporting services should exercise no control over the users, except within the strict limits of any responsibility laid on them for applying special considerations of public policy.

- Third, the enunciation of any general standards for the guidance of users and service organizations is a collective function of ministers, to be exercised generally through the Treasury Board; the performance of all departments and agencies against these standards should therefore be assessed under the direction of the Treasury Board.
- Fourth, it is appropriate that service organizations be consulted by the Treasury Board for technical guidance in the framing of relevant policies and standards.
- Fifth, to ensure that service organizations do not become inbred and complacent, or unresponsive to the need of users, the senior management should form part of the general rotational programme for the top levels of the public service, and close attention should be paid to the career development and training of specialist personnel.
- Sixth, the organization of each supporting service should be designed to meet the needs of its clientele, with such decentralization as may be required to ensure that all users can be served promptly and effectively throughout the country.

Finally, in each of the supporting services examined in this volume, a common question arises: the choice to be made by the government between maintaining its own internal sources of supply for goods and services, and obtaining them by purchase or hire from external sources. This "make or buy" problem recurs throughout the following reports, and is further examined, in a report by that name, in relation to a wide range of specialized government activities for which commercial sources might be employed. In this regard, your Commissioners have been guided by the general principle set forth briefly in the first report: that, where circumstances permit, the use of outside sources is preferable from the viewpoint of the government and the public alike. For the former, it reduces the distractions from the essential task of defining and attaining the goals of public policy; for the latter, it provides a means of strengthening the private sector of the economy.

5 REAL PROPERTY

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 5: REAL PROPERTY

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	23
1 INTRODUCTION	25
2 LAND	28
Land Acquisition	28
Disposals of Land	30
Leasing of Lands and Dwellings	32
Land Use	33
Land Legislation	34
Recommendations	35
Special Purpose Lands	36
3 CONSTRUCTION—CIVIL DEPARTMENTS AND AGENCIES	41
Department of Public Works	41
Other Departments Engaged in Construction	43
Department of Transport	43
Northern Affairs and National Resources	44
Department of Agriculture	44
Department of Citizenship and Immigration	44
Construction Outside Canada	44
Planning and Construction Organizations	45
Construction Programming	48
Contracting	49
4 PROPERTY OPERATION—CIVIL DEPARTMENTS	54
Standards of Accommodation	54
Administrative Procedures	57
Foreign Operations	59
5 DEPARTMENT OF NATIONAL DEFENCE	60
Planning and Construction	60
Operation and Maintenance	62
Organization	62
6 THE NEW ROLE OF THE DEPARTMENT OF PUBLIC WORKS	65
Functions to be Discontinued	66
Decentralization and Field Organization	67

ACKNOWLEDGEMENTS

A Project Group, under the direction of Brigadier Jean P. Carrière, E.D., P.ENG., M.E.A.C., M.A.S.C.E., Executive Vice-President, *Franki of Canada Limited*, Montreal, conducted the field investigations for this report.

A number of Project Officers collaborated on the inquiry, and your Commissioners wish to acknowledge the assistance received from those mentioned hereunder:

C.-E. Forest, C.E., P.ENG., M.E.I.C., Consulting Engineer, *Pelletier & Forest*, Montreal.

André L. Lalonde, P.ENG., *Paul Pelletier Engineering Ltd.*, Montreal.

Thomas J. Plunkett, M.A., Municipal Affairs Consultant, Montreal.

Stuart C. Sharpe, C.A., Toronto.

Professor H. J. Spence-Sales, B.ARCH., *McGill University*, Montreal.

An Advisory Committee, under the chairmanship of Richard L. Hearn, LL.D., D.ENG., Consulting Engineer, Queenston, Ontario, was also set up in conjunction with this Project. The Committee members were:

George M. Black, Jr., C.A., Business Consultant, Todmorden, Ontario.

Marcel Faribault, LL.D., F.R.S.C., *Trust Général du Canada*, Montreal.

Philip N. Gross, Westmount, P.Q.

Major-General Howard Kennedy, C.B.E., M.C., E.D., Consulting Engineer, Ottawa.

John C. Machan, *Canadian Pacific Railway Company*, Montreal.

Ralph C. Pybus, *Industrial Development Commission of Greater Vancouver*, Vancouver.

Charles N. Wilson, *The Standard Dredging Company Limited*, Saint John, N.B.

A number of submissions bearing on this topic were received from individuals and organizations: these have been carefully considered and are noted in our final report.

Your Commissioners, in acknowledging the assistance and advice received from the above-named persons, dissociate them from any of the findings and conclusions contained in this report; for these, your Commissioners assume full responsibility.

1

INTRODUCTION

The federal government currently manages an investment in real property having an estimated worth of \$4 billion and is adding to it each year at a rate of over \$300 million. Excluded from this estimate are the lands forming the large public domain in the territories. The real property investment, representing a widely assorted range of lands, structures and engineering works, lies largely within the provinces. Public buildings and office space for government employees form a significant part of the total but substantial properties are held for special purposes, such as military establishments, airports, national parks, canals, marine works and so on. In addition to the property it owns, the government leases a large number of properties which it uses principally for offices, depots and residences, both in Canada and abroad.

In this report the management of real property, including its acquisition and disposal, is considered. The important dimensions of the subject are demonstrated by the fact that, in the fiscal year 1960-61, the construction, acquisition, major repairs and improvements, and the upkeep of federal buildings, lands and works cost \$384.5 million, excluding the outlays of the larger Crown corporations. Of this amount, \$312 million was on capital account, the remainder being repairs, rentals and upkeep. An analysis, by department, follows:

	(\$000)
National Defence and Defence Production	119,500
Public Works	92,900
Transport	73,500
Northern Affairs and National Resources	29,000
Agriculture	18,000
Atomic Energy	15,200
Citizenship and Immigration	13,000
Veterans Affairs	6,300
National Research Council	5,300
Justice—Penitentiaries	2,600
R.C.M.P.	2,300
National Health and Welfare	1,800
External Affairs	1,300
Mines and Technical Surveys	1,300
Fisheries	1,100
Other Departments	1,400
 Total	 <hr/> <hr/> 384,500 <hr/> <hr/>

If all other agencies are included, the total is increased to \$575 million, of which construction and acquisition represents \$400 million.

Originally the whole property function of the government (excluding the public domain, then consisting of the prairies and more northerly territories) was the responsibility of the Department of Public Works. Over the years, real property operations have been assumed by other departments and grown to the point where today Public Works carries out only forty per cent of new construction and controls only a fraction of the floor space in existing buildings. The other departments which have major activities in these fields are National Defence, Transport, Agriculture, and Northern Affairs and National Resources. A growing volume of owned and leased property outside Canada is principally the concern of the Departments of External Affairs and Trade and Commerce. Government agencies, of which the National Capital Commission is an example, have also developed real property activities of some importance and they, with the exception of Canadian National Railways and other large independent Crown corporations, are embraced in this review.

As a consequence of this growth and proliferation, there is today a diffusion of effort and responsibility for the properties required by the federal government for its own purposes, with an accompanying variation in standards of performance. Your Commissioners are concerned with the lack of effective machinery for the development of common policy and for continuing expert scrutiny of operations to assure uniform standards of economy and efficiency throughout the whole of the complex. Prevailing attitudes in the public service

reflect a widespread lack of understanding of what real property management entails. Some essential functions are, as a consequence, completely ignored. Effective management of real property owned and leased by the government requires:

- Maintenance on a nationwide basis of a complete and accurate record of all properties.
- Property accounting on both a quantitative and monetary basis, using accrual methods of accounting and recognizing depreciation when appropriate.
- Early identification of unneeded property and prompt surplus disposal.
- Organized administration and specific designation of responsibility for carrying out each function.

While several aspects of real property management are touched on in various legislative enactments, no fundamental concept has developed in this area. There is much to be gained in the adoption of a more systematic and business-like approach.

2

LAND

The Government of Canada owns approximately 46 million acres of land within the provinces of Canada, which are put to varying uses in satisfying the objectives of the various branches of government. The approximate breakdown of this total according to major uses is as follows:

	<i>Millions of Acres</i>
National Parks	12
Indian Reserves	6
Defence Installations	6
Miscellaneous use	22
 TOTAL	 46

The miscellaneous category consists of everything from urban lots to town-sites, vast airports and forest reserves. Outside provincial boundaries, the Department of Northern Affairs and National Resources administers the public domain comprising 965 million acres, the greater bulk of which is wild land.

LAND ACQUISITION

Land may be acquired by any department or agency provided the funds are available to it, but expenditures in excess of \$15,000 for such purpose require Treasury Board approval. Currently, the departments and agencies most

actively engaged in increasing their holdings are the Departments of National Defence, Public Works and Transport, and the National Capital Commission, each of which maintains a special branch for this purpose. Other departments, with a smaller volume of acquisitions, tend to meet their requirements without the assistance of any specially qualified staff.

Land is acquired by direct purchase and by expropriation. In the latter case the Crown acquires immediate title and if compensation cannot be agreed with the former owner, it is settled in the Exchequer Court. Negotiated prices or settlements are charged to the votes of the acquiring departments, but awards of the Exchequer Court are charged directly to the Consolidated Revenue Fund.

The practice of expropriation or forced possession by the Crown is unobjectionable, provided the exercise of the right is limited to cases of necessity and the representatives of the Crown act with fairness and expedition. There can be no doubt that the dispossessed owner may suffer prejudice which cannot be measured in money but it is generally accepted that the need of the public must prevail over the rights of the individual. There is, therefore, where resort is had to expropriation, the clear duty to spare the former owner any unnecessary additional prejudice. He is entitled to be dealt with promptly and equitably.

Your Commissioners, having reviewed current administrative practice, are less than satisfied that these principles are being observed. There is a noticeable tendency to procrastinate and delay settlement, the dispossessed is too often forced to assume the initiative, the cost of threatened litigation often dilutes his bargaining strength where public servants refuse to disclose their hands in seeking to settle for less than is the true worth of the property. The establishment of proper attitudes and procedures will clearly be easier in departments having specialized property personnel than in units which only occasionally resort to expropriation. Consideration should be given to facilitating prompt out-of-court settlements through an approved process of arbitration.

Land acquisitions outside of Canada, mainly by the Departments of External Affairs and Trade and Commerce, require Treasury Board approval. Recommendations to acquire foreign sites for chanceries and residences are put forward initially by ambassadors or commercial counsellors, and long-term programmes exist for further acquisitions for such purposes.

Experience elsewhere suggests that expenditures for new land acquisitions by federal governments may be substantially reduced by relying more heavily on present holdings and, where possible, effecting interdepartmental transfers,

rearrangements, or divisions of government property to accommodate new needs. A prerequisite to this approach is an accurate and complete inventory of the properties owned, and this the Government of Canada does not possess. Several attempts have been made to accumulate this information, which is essential to efficient management, but without success. Since 1956, some valuable work has been done by the Department of Public Works and an elementary record has been created which covers a substantial proportion of government properties.

Two major deficiencies of this record must be overcome before it has any real utility from a management standpoint. First, it must be complete and all-embracing and, secondly, it must contain a necessary minimum of information with respect to each property. At present, no more than the location of a parcel and a description of its boundaries are shown. Much more information must be recorded, such as the use to which it is being put, the structures standing on it, the cost and date of acquisition, the value assigned, if any, for the purposes of making grants in lieu of taxes, utility services, and the like.

The development of a complete, perpetual inventory is of importance not only in relation to acquisitions but even more so to disposal of property and its administration generally. Your Commissioners accordingly return to this subject later hereunder.

DISPOSALS OF LAND

So far as federal initiative results in disposal of unneeded property there is virtually no activity under this heading. Not even a rough estimate can be ventured of the realizable value of lands now owned which could be disposed of without any prejudice to government programmes. Within the 22 million acres now held for miscellaneous uses there are beyond question a significant number of properties which should be sold. The potential recovery in money is important, probably considerably greater in amount than sums being spent on current acquisitions, but there is added public advantage in restoring such properties to productive use and thereby causing them to assume a share of the tax burden.

That this important opportunity is essentially neglected is attributable to a combination of circumstances. Procedures governing land disposal are cumbersome and archaic; the arrangements under which departments hold lands encourage retention rather than disposal of unneeded property and, most important of all, there is no one responsible for assuming any initiative in the matter.

Disposals of Crown land are effected under two statutes: the *Public Lands*

Grants Act and the *Surplus Crown Assets Act*. The first of these, the *Public Lands Grants Act*, is general legislation which has been on the statute books for many years and provides for the disposal of land "not required for public purposes". Under it, departments may dispose of land without recourse to a declaration of the same as surplus (a procedure referred to below) and the provisions of this Act tend to apply principally to transactions with the provinces.

A noteworthy provision contained in section 8 of the *Public Lands Grants Act* stipulates that "public lands declared by the Governor in Council to be necessary for the defence of Canada shall not be sold, alienated or otherwise disposed of but may be leased or otherwise used as the Governor in Council thinks best for the advantage of Canada". In the absence of a series of systematic declarations under this section, it is difficult to determine what portion of the six million acres in the possession of the Armed Forces may be available for sale. There is no evidence of any serious effort by the Services to dispose of unneeded portions of this huge holding.

The *Surplus Crown Assets Act*, dating from the last war, has general application to most forms of Crown property but not to several important classes of Crown lands, including National Parks, Indian and Forest Reserves, land in the territories, various lands under the control of the Department of Transport, and some others. This Act becomes operative only following a declaration by a department that property is surplus to its requirements. Thereupon an agency, known as Crown Assets Disposal Corporation, seeks through newspaper advertising to find a buyer and negotiates the sale. Neither the statute nor the form of organization of Crown Assets Disposal Corporation is particularly suitable for the disposal of surplus real estate.

The major imperfection in the system is that the initiative rests with the department holding surplus land and there are a number of reasons why departments do not in fact take such initiative. The first reason is that in many cases departments have limited knowledge of the properties within their care and no systematic means of identifying unneeded parcels. Further, grants made to municipalities in lieu of taxes are not distributed by charges to the departments holding the land, thus no financial penalty results from continuing to hold unneeded property. When land is sold, departments are not credited with any part of the proceeds. Finally, there exists a general belief by officials that their departments "own" federal property entrusted to their care. There would be advantage in fostering throughout departments a concept of ownership in common under which property allocated to or acquired by a department is not to be forever part of its resources.

Regulations laid down for the guidance of departments in making surplus declarations are virtually inoperative so far as land is concerned. Such declarations as are made are frequently prompted by the urgings of prospective buyers. Crown Assets Disposal Corporation—whose land sales in 1961 approximated \$2 million—may not assume any initiative. In the result, the volume of disposals taking place is insignificant in comparison with the potential.

When a sale has been negotiated, the procedures for passing title to the purchaser are extremely involved and may require the participation not only of the department and Crown Assets Disposal Corporation, but also the Governor in Council, the Secretary of State, and the Department of Justice. In our report on *Legal Staff Services*, a recommendation is made looking to a simplification of these procedures.

Apart from disposal by sale or gift, a procedure exists for the condemnation or abandonment of federal real property. Upon publication of an official declaration that it has ceased to be in occupation of any specified real property, the Crown has no further liability for it. Of particular relevance to certain types of engineering works and structures, very limited use has been made of this method of disposal. As a result, the government is frequently called upon to carry out repairs and replacement of facilities which have long since ceased to have utility in relation to federal programmes.

In summary, the sheer inertia of departments in the matter of disposal of unneeded real property, for which their lack of accountability for performance is in part responsible, can be regarded as a principal reason for the failure of present arrangements. The more fundamental deficiency, however, lies in the unsuitability of the existing system in dissipating responsibility for the performance of the various functions.

LEASING OF LANDS AND DWELLINGS

Across Canada there is a host of federal properties being used by others. Every type of arrangement exists and no consistent policy has been developed in this area. Some strange anomalies arise, such as the fact that the lawn of the Quebec Legislative Assembly is federally owned and part of the Ottawa Exhibition stands on federal property. More generally, dwellings, lands in townsites and National Parks, wharves and wharf rights, water lots, power rights, and the like, are leased to individuals and business enterprises.

A test review of leases disclosed that many are for long periods, often with automatic renewal provisions. Some provide for adjustment of rentals during their term, while the absence of such provision in others has resulted

in unduly low rentals persisting for many years. Charges for land in federally owned townsites appear generally to be low, particularly when the cost of services supplied are taken into account. In general, the revenue potential of this considerable volume of leased property cannot be said to have been actively exploited. Adjustment of rentals to present fair values could produce a significant increase in revenue. As in other aspects of real property management, the efficient conduct of this function cannot be attained until a complete record of federal property is available.

Over the years the government has constructed a large number of dwellings for occupancy of civil servants. Mainly located in the North, in National Parks, on experimental farms, at border points, adjacent to canal locks and other locations of similar nature, these dwellings vary considerably in age and suitability. In remote areas their costs have understandably been considerably higher than those of equivalent houses elsewhere. In an effort to bring about consistency in the rentals charged, an appraisal by Central Mortgage and Housing Corporation of all such properties has been in process for some time and it would be highly desirable to have the same completed as quickly as possible. Where costs and current values dictate a rental out of scale with ability to pay, as may occur in the North for example, the employee is protected by a rule that the rental may not exceed twenty per cent of his salary —when utilities are provided, twenty-five per cent.

The principal objectives, apart from proper maintenance of these properties, are to see that the class of accommodation provided is appropriate to its use and that equitable rents are charged on a consistent basis across the whole public service. The separate activities of a number of departments in this field render consistency difficult to achieve and the special efforts referred to above need to be prosecuted with vigour. However, as an integral part of real property management, the task will be best performed by a single agency organized to carry out this and other parts of the whole function.

LAND USE

In Canada, as a whole, the question of land use has become increasingly a matter of national concern and all levels of government are involved in the conservation and best use of land, in national as well as provincial and local interests. The involvement of the federal government in this matter is inevitable, by reason not only of its impact on the economy, but also because federal property represents by far the largest real estate holding in Canada. Through the exercise of its prerogative, the federal government often influences the physical structure of cities and towns. Equally, the development of rural and

suburban areas, and transportation services required by them, may be significantly affected by federal programmes.

In cities and towns across Canada the various federal departments and agencies are erecting public buildings, office buildings and warehouses. Airports are being constructed, some as federal establishments, others with financial assistance from the federal government. The development and extension of harbours, large and small, is continuing. The problems of larger cities are bringing into focus increasingly the need for slum clearance and urban renewal, in relation to which the location of federal buildings may have particular significance. In rural areas, land reclamation projects, irrigation systems and community pastures are being developed with federal funds. Military establishments covering large tracts of land, roads to resources and other federal highway activities, affect the rural configuration. The construction of wharves with federal funds may profoundly affect the development of coastal areas.

It is not sufficiently appreciated that it is no longer acceptable in the public interest for the federal government to act independently of local or regional planning authorities, because the scale of its projects may be so great, in particular cases, as to distort long-range development planned by local authority. At present, the various federal departments and agencies concerned are proceeding independently. In such circumstances the application of a consistent federal policy with regard to land use, planning and development generally, is virtually impossible. It is evident that the interest and responsibility of the federal government is to play a full and effective part in programmes which are developing, to guide future growth into desirable patterns and reshape older communities to meet modern needs. This responsibility may even extend to assuming some initiative in areas in which the federal government is heavily involved through its real property holdings. Your Commissioners conclude that any plan for real property management should, therefore, include provision for continuing attention to this matter and provide for assigning skilled personnel adequately to discharge this responsibility.

LAND LEGISLATION

Management of federal land, its acquisition, disposal and use, is governed in part by a number of statutes. Mention has been made of the *Public Lands Grants Act* and the *Surplus Crown Assets Act*. Expropriations are made under the *Expropriation Act*. Other statutes such as the *Aeronautics Act*, the *Defence Production Act*, the *Municipal Grants Act*, and the *Public Works*

Act all deal with the subject to some extent. This legislation, taken as a whole, is not always consistent nor are its provisions, many of ancient origin, appropriate or adequate to meet today's needs. A general revision and consolidation would appear highly advantageous.

RECOMMENDATIONS

Before proceeding to a discussion of special purpose lands, there are several recommendations to be made. The following recommendations having general applicability to the entire federal service, only excepting the large proprietary Crown corporations, are offered at this point.

- We therefore recommend that:*
- 1 Consideration be given to consolidating in a single statute land legislation having general application to the acquisition by purchase or lease, and the disposal or leasing to others, of real property in Canada and abroad, by all departments and agencies of the Crown.
 - 2 The Department of Public Works be made responsible for the development of a complete inventory of properties owned or leased by the federal government and its agencies, and its maintenance as a perpetual record by posting to it all future acquisitions and disposals as they occur.
 - 3 The Department of Public Works, in its organization for real property management, assign staff to be responsible for land use aspects of federal property ownership and to consult and co-operate with other levels of government and their agencies for the future development of urban, rural and regional areas.

Your Commissioners are persuaded that real property management, in all its phases, should become the responsibility of a single body, the Department of Public Works. For reasons set out later in this report, it is considered advis-

able, for the time being, to exclude from this consolidation the real property activities of the Armed Services and to confine present reorganization thereof to an integration of the separate operations of the Services into a single defence real property agency within the Department of National Defence.

- We therefore recommend that:*
- 1 The Department of Public Works be constituted the sole authority for real property management outside the defence sector.
 - 2 Except for defence purposes, the acquisition of property by purchase or lease be made by the Department of Public Works and title thereto be held in its name.
 - 3 The disposal of all surplus property of the federal government, including property declared excess to the needs of the Armed Forces, be the responsibility of the Department of Public Works and that under a form of organization appropriate for the purpose, aggressive efforts be made to identify and dispose of unneeded real property.
 - 4 The employment of Crown Assets Disposal Corporation in the disposal of surplus real property be discontinued.

SPECIAL PURPOSE LANDS

The more important types of property holdings dealt with hereunder are the National Parks and government townsites in the Northwest Territories, in respect of each of which administrative requirements differ materially from other real property owned by the government.

The federal government maintains seventeen national parks. With the exception of Wood Buffalo National Park, a buffalo reservation administered separately, these parks, which range in size from 4,200 square miles to less than 200 acres, are the responsibility of the National Parks Service of the Department of Northern Affairs and National Resources. The relative size and scale of their operations is shown by Table 1.

Table 1—PARKS ADMINISTERED BY THE NATIONAL PARKS SERVICE—1960-61

Park	Province	Area-Square Miles	No. of Visitors (000)	Expenditures		
				Operating (\$000)	Capital (\$000)	Revenue (\$000)
Banff	Alta.	2,564	1,078	1,766	1,181	703
Cape Breton	N.S.	367	323	308	450	36
Elk Island	Alta.	75	198	269	321	49
Fundy	N.B.	79.5	227	223	351	55
Georgian Bay Islands	Ont.	5.4	20	45	21	5
Jasper	Alta.	4,200	357	918	699	306
Kootenay	B.C.	543	468	453	287	203
Mt. Revelstoke and Glacier	B.C.	621	39	254	706	8
Point Pelee	Ont.	6	546	92	115	36
Prince Albert	Sask.	1,496	138	478	486	141
Prince Edward Island	P.E.I.	7	412	166	525	42
Riding Mountain	Man.	1,148	629	489	549	180
St. Lawrence Islands	Ont.	.2	62	53	34	2
Terra Nova	Nfld.	156	20	114	486	37
Waterton Lakes	Alta.	203	349	319	417	128
Yoho	B.C.	507	65	374	636	49
Park trunk highways					6,663	
Head and Regional Offices*				275	369	
Engineering Services*				534	34	19
		11,978.1	4,931	7,230	14,330	1,999

* Includes costs in connection with Historic Sites.

The *National Parks Act* declares that these lands are “dedicated to the people of Canada for their benefit, education and enjoyment” and further stipulates that they be maintained “so as to leave them unimpaired for the enjoyment of future generations”. This is somewhat of a contradiction in terms, and the provision of amenities and recreational facilities for the five million people annually visiting the parks has, of necessity, brought about physical changes in the countryside which rob it, in part, of its virgin character. These two statutory objectives may well become increasingly irreconcilable as public use increases, with an accompanying further development of the nine existing townsites and continuing construction of roads and trails throughout park areas.

Normally, the management of such large areas might be expected to yield substantial revenues through merely removing annual crops in accordance with good conservation practice. It is observed, however, that half of the total revenues is derived from tourist traffic in the form of motor vehicle charges, amusement fees and licences, and the conclusion is inescapable that the revenue possibilities of the parks' national resources are prosecuted with insufficient vigour. For example, in 1960-61, timber permits and royalties yielded \$21,850, a meagre return indeed from almost 12,000 square miles of park lands.

The administration of townsites is found to have suffered from the fact that it has not been functionally separated from general park administration, and organizational forms have not been established to deal effectively with this highly specialized activity. This, coupled with undue centralization of authority in the Ottawa headquarters and lack of clear-cut policy objectives, explains certain unsatisfactory conditions noted by your Commissioners, which include:

- Inadequate communications between administration and the residents and concessionaires of the townsites.
- An undue involvement of park managers in detailed problems on a day-to-day basis, compounded by delegation to them of insufficient authority to make decisions on the spot.
- Financial records showing expenditures for local services and facilities not used to establish the basis of charges to residents for utilities, garbage collection and other municipal-type services.
- An illogical and inconsistent pattern of rentals for land used for residential and commercial purposes.

Your Commissioners believe that substantial changes are required to achieve the satisfactory operation of the national parks. As a prerequisite, a complete review of national park policy should be undertaken and operational patterns developed which may best harmonize the twin objectives of meeting the recreational needs of the people and preserving the natural beauty and character of the environment. The future policy must also take account of the extreme variations of scale indicated in Table 1 and the existing imbalance in geographical location. (*See Table 1A*)

The three small parks in Ontario, viewed against the background of a growing system of provincial parks and recreation areas, have little in common with other federal parks either in the nature of their operation or their

Table 1A—NATIONAL PARKS BY MAIN GEOGRAPHICAL AREAS

	<i>Number of Parks</i>	<i>Area Sq. Miles</i>	<i>Operating Costs 1960-61</i>
Western Canada			(\$000)
Rocky Mountain Parks	6	8,638	4,184
Prairie Parks	3	2,719	1,236
	—	—	—
Central Ontario	9	11,357	5,420
Atlantic Provinces	3	11.6	190
	4	609.5	811
	—	—	—
	16	11,978.1	6,421
	—	—	—

utility in terms of conservation or the attraction of tourists. There is much to be said for discontinuing federal activity in this area. The remaining parks fall naturally into two reasonably compact groups which, while varying very considerably in size, have a number of operating similarities.

As the figures suggest, the parks of Western Canada, in particular the mountain parks, represent the core of the problem to which future policy must be adapted. Resource development and tourist potential, both enhanced by greater access, need wise management; the size and close proximity of the six mountain parks raises questions as to appropriate scale and nature of future operations; the management of townsites within park boundaries requires special forms of organization and finance; and, because of the substantial stake of the provinces in the successful operation of these parks, there is need for close collaboration with them.

In the opinion of your Commissioners it is not unreasonable to set as a goal for these parks, in which over \$200 million is now invested, a condition of financial self-sufficiency. To achieve this, however, a degree of acumen and flexibility will be required in those responsible for operations, which will not easily be developed within the framework of a department of government charged with other responsibilities. Your Commissioners believe, therefore, that the operation of the national parks should be vested in an autonomous commission. Its terms of reference should include a clear definition of public policy and its senior management should be appointed on the recommendation of the commissioners. Its headquarters should preferably be close to the principal operations in Western Canada and the parks in the Atlantic provinces should be supervised through a regional headquarters in that area.

In developing its operational patterns, the proposed commission should seek to correct the more obvious faults of the present system. The position of a park superintendent needs to be strengthened and he should have authority

over all operations within his park. To bring some order into the relations between the government and park residents, and to permit the latter to play a proper part in local administration, townsite operations should be separately organized under a modified municipal form. The financing of townsite operations should accord with municipal practice and be budgeted for separately on a self-sustaining basis. Rentals charged for land in townsites and elsewhere should be reviewed and a more rational method of fixing the same established.

The autonomy of the proposed commission would rest upon the delegation to the commissioners of the management responsibility. As an agency of the government, however, the staff should be part of the public service. The common service agencies of the government should serve the commission, but because of the special nature of property transactions within the parks, there should be a delegation by the Department of Public Works to the commission of authority for the leasing of land and other land transactions within the parks.

- We therefore recommend that:*
- 1 A review be made of national park policy and a comprehensive statement of future goals be incorporated in the relevant legislation.
 - 2 The national parks be administered by a commission with members chosen from outside the public service, appointed for specific terms and remunerated for their services.

The foregoing observations with regard to the operation of townsites have equal relevance to similar developments in the North and, as that area develops, undoubtedly administrative needs will arise in connection with new settlements and townsites. Your Commissioners restate their belief that in such cases there should be early recognition of the fact that the development and subsequent administration of a townsite cannot be accommodated within the regular administrative organization of a federal department. Extensive decentralization is necessary and the best way to meet the special requirements will generally be through the establishment of a special type of municipal corporation. A model, which might well be appropriate for use by the federal government, is to be found in the *New Towns Act* of the Province of Alberta.

3

CONSTRUCTION—CIVIL DEPARTMENTS AND AGENCIES

Construction activities of federal departments and agencies, costing \$312 million in 1960-61, cover virtually the whole field, from tourist facilities to hospitals, from multi-storey office buildings to vast air terminals. They include road construction, from park trails to national highways. The various departments and agencies construct harbours, nuclear power plants, dams and irrigation projects. An endless listing could be made of the big and the small, the special and the common, sorts of construction performed by the federal government.

DEPARTMENT OF PUBLIC WORKS

Reference has already been made to the extent to which the monopoly of construction activity granted at Confederation to the Department of Public Works has been impinged upon by the growing construction activities of other departments and agencies. Today, its construction activity for its own account represents but twenty-five per cent of total government construction and it carries out, as agent for other departments, an additional fifteen per cent. Its principal independent competitors are the Departments of National Defence, twenty-five per cent, and Transport, twenty per cent. Some of this independent activity originates in legislation but more frequently it has received parliamentary sanction by indirect methods. Thus departments, previously entirely dependent on Public Works for their construc-

tion needs, sought appropriations for specific projects or activities involving the need for new construction. Having secured the funds they organized to carry out construction themselves and thereby established a continuing status in the field. The result, discussed more fully below, is a considerable degree of duplication in design and construction personnel within the public service. Since the last war construction for the Armed Services has involved expenditures of major proportions. Most of it has been carried out by the Department of Defence Production with the help of Defence Construction (1951) Limited, and by the individual Services using their own professional and technical staffs. An arrangement exists, however, whereby the provision of certain types of facilities required by the Department of National Defence and the Services, notably office buildings and premises, is undertaken by the Department of Public Works. Your Commissioners regard the existing division of responsibility for these matters as reasonable and appropriate.

The Department of Public Works operates three construction branches, two of which have certain maintenance and operational duties. The Building Construction Branch carries responsibility for the Department's programme of building construction and also supervises building projects for all civil departments except the Air Services Branch of the Department of Transport. Operating through ten field offices, its construction expenditures in 1960-61 approximated \$31 million. The Harbours and Rivers Branch carries out the planning, design and construction of a wide variety of marine works, wharves, harbour improvements and repairs, breakwaters, and sea-walls. It plans and carries out a considerable volume of dredging. Fourteen district offices are maintained, with total expenditures in 1960-61 amounting to almost \$13 million.

The third unit, the Development Engineering Branch, deals with the design and construction of highways, bridges and other structures, water distribution and sewage disposal systems, access roads and parking areas. This branch administers the *Trans-Canada Highway Act*, the "roads to resources" programme and conducts special engineering studies. It operates ten field offices, and in 1960-61 its total expenditures on capital and operating accounts exceeded \$61 million.

Through its several branches the Department of Public Works provides architectural, engineering and other services to other departments and agencies. As previously indicated, it carries out a considerable volume of construction on their behalf, the relevant expenditures being charged to the votes of the departments concerned. The volume of this activity is indicated by Table 2 showing the charges made during 1960-61:

Table 2—DEPARTMENT OF PUBLIC WORKS SERVICE FEES AND CONSTRUCTION EXPENDITURES CHARGED TO OTHER DEPARTMENTS—1960-61

<i>Department</i>	<i>Expenditure 1960-61</i>
Northern Affairs and National Resources	\$13,644,000
Veterans Affairs	4,935,000
Citizenship and Immigration	4,536,000
Transport	3,272,000
National Research Council	2,459,000
Agriculture	1,643,000
National Defence	1,435,000
National Health and Welfare	1,294,000
R.C.M.P.	1,268,000
Mines and Technical Surveys	1,264,000
Fisheries	457,000
Justice	111,000
Others (7 departments)	102,000
 TOTAL	 \$35,152,000

OTHER DEPARTMENTS ENGAGED IN CONSTRUCTION

The activities of departments independently engaged in construction, with the exception of the Department of National Defence reported on later, are discussed briefly hereunder.

Department of Transport

Both the Air and Marine Services Branches of this Department maintain staffs engaged in construction activity. While considerable work is performed by the Department of Public Works for the Marine Services Branch, the latter makes its own contracts for construction in connection with canals and aids to navigation. Its total construction expenditures amounted to \$11.1 million in 1960-61. The Air Services Branch is responsible for all works related to the civil aviation, telecommunication and meteorology activities of the Department. Its total expenditures during 1960-61 for construction and repairs approximated \$62.4 million.

Northern Affairs and National Resources

This Department maintains two engineering divisions, one in the Northern Administration Branch and the other in the National Parks Branch. During 1960-61 construction expenditures of this Department, carried out with its own resources, exceeded \$13.8 million. Additional construction, involving approximately the same total expenditures, was performed for it by the Department of Public Works.

Department of Agriculture

The total capital costs of this Department during 1960-61 for the construction and acquisition of real property amounted to over \$15 million, of which amount over \$12 million is represented by expenditures under the *Prairie Farm Rehabilitation Act* and the *Maritime Marshland Rehabilitation Act*. The balance, slightly over \$3 million, represented a large number of small projects, the majority of which were supervised by the Department of Public Works.

Department of Citizenship and Immigration

The Indian Affairs Branch of this Department spent \$10.5 million in its construction activities during 1960-61. A number of the projects were actually supervised by the Department of Public Works but all projects under \$50,000 in cost, and some in excess of this amount, were carried out under the direction of the Engineering Construction Division of the Indian Affairs Branch.

Construction Outside of Canada

The two Departments principally concerned in this activity are External Affairs and Trade and Commerce. A ten-year programme of External Affairs for the construction of chanceries and residences in foreign cities envisages an expenditure of \$15 million. The Department of Trade and Commerce, also working to a long-term programme, is constructing one or two foreign residences annually, spending approximately \$70,000 for each such unit. Extra-departmental control of expenditures abroad is provided by a Treasury Board Advisory Committee on Accommodation Abroad which includes in its membership, in addition to representatives of the departments primarily concerned, staff of the Treasury Board and the Department of Public Works. A sub-committee is concerned with architectural aspects of this construction and as a general rule Canadian architects are employed.

PLANNING AND CONSTRUCTION ORGANIZATIONS

Thirteen civilian departments and agencies in 1961 maintained architectural or engineering branches, or both. As shown by Table 3, some consisted of but one or two professionals and supporting staff, but a number are sizeable organizations. In all, nearly four thousand people were so engaged.

Table 3—PERSONNEL EMPLOYED IN ARCHITECTURAL AND ENGINEERING BRANCHES OF CERTAIN CIVIL DEPARTMENTS AND AGENCIES—1961

<i>Department or Agency</i>	<i>Architects</i>	<i>Engineers</i>	<i>Supporting Personnel</i>
Public Works	78	371	471
Transport	35	229	405 ^a
Northern Affairs and National Resources....	6	56	295
Agriculture	1	3	7
P.F.R.A.	—	113	1,052 ^a
M.M.R.A.	—	10	70
National Harbours Board	—	40	117 ^a
Citizenship and Immigration			
(Indian Affairs)	2	12	78
Veterans Affairs	1	3	13
National Research Council	9	—	281 ^a
Justice (Penitentiaries)	6	4	16 ^b
National Capital Commission	1 ^d	1	3
R.C.M.P.	—	1	18
Northern Canada Power Commission	—	2	—
External Affairs	1 ^c	—	8
 Total	 140	 845	 2,834

^a Staff, or part of it, also engaged in repair and maintenance work.

^b Section disbanded 1st April, 1962.

^c Located in Paris.

^d Landscape Architect.

As indicated in the footnote to the foregoing table, the personnel listed are not exclusively engaged upon construction, and operations absorb some of the time of these specialist staffs. While over-all direction is generally from Ottawa, there is considerable dispersal of these staffs across the country. To supplement their own facilities, departments sometimes seek help from other agencies of the government and also retain outside architects and engineers to plan and supervise construction. Information was unavailable with respect to total fees paid for these services but the volume of work so contracted for is substantial.

In the latter part of 1961 steps were initiated to reduce the extent of duplication of professional personnel engaged in construction, employed by

these various departments and agencies. As the foregoing table indicates, the Architectural and Engineering Division of the Penitentiaries Branch was disbanded and the Department of Public Works has now assigned thirteen of its architects to other departments to assist in preliminary planning and to provide liaison. This is a promising development but no more than a start in eliminating undesirable overlapping.

On the basis of the evidence gathered, your Commissioners have come to the view that the continuing dispersal of construction activity throughout the government should be reversed and that, to achieve economy and efficiency in the conduct of public business, responsibility for all construction required by civil departments and agencies should be consolidated in a single construction agency. While it may ultimately prove desirable to add to the duties of such agency the conduct of defence construction, for reasons that are advanced in Chapter 5 of this report, it may be preferable, for the time being, to have such work carried out under the direction of the Department of National Defence. The existing fragmentation of specialist staffs and services described above, has certain obviously undesirable consequences. An even tempo of activity is almost impossible to maintain and individual staffs located throughout a group of departments face periods of relative inactivity, to alleviate which wasteful "make-work" programmes may be undertaken. The career prospects for professional staff are prejudiced by the difficulty and infrequency of interdepartmental transfer. There is, at times, evidence of departmental raiding for competent personnel, which results, in part, from an uneven distribution of professional and technical skills and varying levels of competence throughout the departments.

The foregoing observations have particular relevance to the cities outside Ottawa, where the isolation of small groups of professional and technical personnel in the field may be pronounced. The small size of many units, moreover, has an influence upon the extent to which a proper delegation of responsibility to field offices is made. This, together with a common tendency throughout the public service to make too many minor decisions at headquarters, substantially reduces the effectiveness of field forces. A single construction agency should be able to establish a regional organization in which the major offices across Canada possess substantial staffs and specialist skills, and it should be possible to delegate to such offices a significant degree of responsibility.

A further advantage envisaged by this proposal is that no longer will important public construction projects be mismanaged as the result of unco-ordinated efforts of a group of departments and agencies without clear

leadership. The construction at Port-aux-Basques and related ferry facilities provides an illustration of the delays and waste of public money which have resulted from this condition. In accordance with the terms of union of Newfoundland and Canada, a freight and passenger steamship service is maintained between North Sydney, Nova Scotia, and Port-aux-Basques, Newfoundland. The programme was initiated in 1951 and called for the construction of a ferry and docks and terminal facilities in each province. Three separate agencies of government and several firms of consulting engineers participated in this work which, as a result of a series of costly errors, was not completed until 1959. The ferry, when built, could not be docked at the newly constructed facilities at Port-aux-Basques. The final solution, reached after calling in an experienced adviser from the United Kingdom, required extensive dredging and channel rectification. The total costs exceeded \$20 million. A noteworthy aspect of this programme is that no blame for the result could be laid upon any one of the departments or agencies involved, nor was there any suggestion of non-performance or irregularity of any sort with relation to the execution of the work. The failure is therefore entirely attributable to the lack of co-ordination of various parts of the programme and a system which assigns no clear responsibility for leadership.

In forward planning of public construction, a matter discussed more fully below, the establishment of priorities becomes necessary. In this connection various factors must be taken into account over and beyond the relative urgency of the needs of prospective users. Such matters as the availability of contracting organizations, the relative tempo of construction activity in different areas of the country, possibly the need to deliberately intensify construction in particular parts of the country for economic reasons, the relative load currently borne by the government's own staffs in various regions (as affecting their ability to provide proper supervision)—these and other similar matters a single construction agency can more readily, than is now possible, bring into focus for the purpose of decision-making.

We therefore recommend that: 1 The Department of Public Works be made responsible for the planning and supervision of all construction required by civil departments and agencies and the employment of all professional, technical and supporting staffs needed for such purposes.

- 2 The Department of Public Works be made responsible for the planning and supervision of construction for the Department of National Defence of all classes of property other than those at present provided for through the planning and construction staffs of the Armed Forces.

CONSTRUCTION PROGRAMMING

In the Commission's report on *Financial Management* it is recommended that departments and agencies be required to prepare their estimates showing proposed expenditures on a programme basis. Forward planning for five-year periods ahead is also recommended to facilitate orderly development and provide advance information as to prospective financial requirements of the government as a whole. In a financial sense, public construction is an important element in such forecasting—the more so because it is susceptible of control to a greater degree than other major elements of cost; but in terms only of the efficiency with which public construction needs are satisfied, forward planning has its own particular justification. In large cities, looking ahead for a longer period than five years may be necessary. In the United Kingdom Government, London planning is on a ten-year basis, while five-year forecasts are used in all other areas.

In preparing their expenditure forecasts, as in requesting immediate appropriations for current purposes, the programmes of departments and agencies will include the cost of new construction required. When Parliament approves the Estimates, the construction funds will be voted to the departments and the Department of Public Works will execute the construction as agent, with the costs chargeable to the votes of the departments concerned. Nonetheless, the forward planning of the construction agency must take account of the potential requirements of all departments and agencies so that a comprehensive view of this particular activity may be obtained. There will be, of necessity, a constant process of revision and change in the planning of programmes. Tentative acceptance, as well as rejections, of particular future programmes will be signified by Treasury Board from time to time and it is clear that absolute certainty as to any project can never be reached until Parliament has voted the funds. Forecasts have to be revised each year, to add a further year and discard the current year, so that a five-year forward projection is always available. For these reasons alone,

there will have to be close working arrangements and easy communication between the Department of Public Works and the other departments and agencies which it serves. The developing practice of seconding professional personnel should in this regard be most helpful.

A system of forward planning as described should contribute materially to the efficiency of a common construction agency. Mainly it should minimize construction on an emergency basis and permit both user departments and the Department of Public Works sufficient time to develop plans and complete arrangements in an orderly fashion. With advance knowledge of the volume and location of future requirements, the necessary adjustments in staff and facilities in the various regional offices of the construction agency can more readily be made.

CONTRACTING

Section 36 of the *Public Works Act* applies to all departments with the exception of Defence Production. It reads:

Where a work is to be executed under the direction of a department of the government, the Minister having charge of that department shall invite tenders by public advertisement for the execution of the work except in cases where

- (a) the work is one of pressing emergency in which the delay would be injurious to the public interest,
- (b) the work can be more expeditiously and economically executed by the employees of the department concerned, or
- (c) the estimated cost of the work is less than fifteen thousand dollars, and it appears to the Minister, in view of the nature of the work, that it is not advisable to invite tenders.

The main purposes of this provision are to ensure equal opportunity for all to compete for government business, to establish the prevailing market price for the work, and to prevent favouritism in contract awards. The Department of Defence Production, excepted from the provisions of the section, advertises only certain types of works projects. In contracts made by it, however, some additional protection of the Crown is provided through the continuation of a wartime practice of providing for recapture of profit where the Minister decides that more than a "fair and reasonable profit" has been realized.

The practice among departments in awarding contracts varies considerably. No statutory requirement exists that the lowest tender be accepted and, in fact, such a practice followed automatically is fraught with danger. Price is only one element of a good contract, albeit an important one. The financial responsibility of the contractor, his competence as shown by previous performance, and the adequacy of his plant and equipment are considera-

tions of major importance. However, it was found that some departments automatically accept the low bid; others, perhaps more knowledgeable as to costs, reject bids which are unreasonably low. In some cases bids received are used as a starting point in a process of bargaining.

The attention of your Commissioners was drawn to the lengthy periods required for construction of public works and, in particular, to the starting of many projects so late in the year that winter construction became necessary. Procedural delays resulting from control procedures, in some cases related to delayed parliamentary action and the lapsing of votes at the end of the fiscal year, account for part of this. Lack of efficient planning within departments is another reason. Recommendations made by your Commissioners should bring about improvement, but with the increasing facility developed by the construction industry for winter operation, the future hazard of added cost may be less serious than formerly. No matter what the weather, the main risk of waste and undue delay is faulty performance by the department in the planning, design and contract-letting phases.

In the report on *The "Make or Buy" Problem* your Commissioners discuss the pros and cons of direct operation with government facilities as compared with purchasing or contracting out. The general conclusion that, in the absence of the most compelling reasons, the government should buy rather than make has nowhere greater relevance than in the field of public construction. While the great bulk of such work is today executed under contract, there are discernible tendencies in some departments to get into the business themselves. Unless strictly checked, the practice of buying equipment and recruiting construction personnel for departmental purposes may be expected to grow to serious proportions. Your Commissioners' recommendation for the centralization of construction activity should be interpreted as rendering impossible in future the development of minor construction empires under any guise.

In certain emergencies, but more frequently as a result of inadequate planning procedures, construction of projects has been commenced before the whole project has been completely designed. While the urgency of the need is sometimes the real motive, and justifies assuming the risks involved, the desire to demonstrate that a start has been made sometimes outweighs natural prudence and caution. Two undesirable and costly results of this practice have been observed. When a department with plans in only the initial stage secures an appropriation to start work, Parliament and the government may be buying a pig in a poke. Sometimes a contractor incapable of handling the whole project is the low bidder on the initial contract; and with his plant on the job, he secures a preferred position as plans are devel-

oped, to the detriment of the execution of the whole project.

In other cases, the letting of a series of prime contracts as plans are completed results in no single contracting organization having responsibility for co-ordination of the whole work. The use of separate prime contractors is not unusual where the divisions of the work and the sequential construction of its various parts are clearly defined, as for example where separate contracts are let for the sub-structure and super-structure respectively. All this means is that one contractor completes his work and moves off the job, to be followed by the second contractor who completes his part of it. At all times one single construction authority is in charge of the job. Where, however, because designs are not complete, a number of prime contractors find themselves working on one job at the same time, chaos usually results and the costs are bound to soar.

Such a situation developed in fact in connection with the construction of the Montreal airport. Two architectural firms (acting jointly) and five consulting engineering firms were retained for the planning and supervision of construction. No less than nine prime contracts were let. Construction commenced in August 1955 and the new facilities went into service in December 1960; a longer construction period than was required for the St. Lawrence Seaway. The complete cost was over \$29 million and over \$5 million was spent for accessory facilities, a total many times the original cost estimates.

The practice of inviting public competition is so generally accepted that perhaps too little thought has been given to some of its disadvantages. While it is essential that the public interest be protected from improper influence in the award of public contracts and from possibly exorbitant costs which may result, it has been found in other countries and in some provinces of Canada that other methods of selecting contractors may prove satisfactory. The method adopted is to provide for the pre-qualification of contractors and to limit to such groups the invitations to tender on public work. To be acceptable, a scheme of this sort must be conducted in strict isolation from the political process, access must be open to all who wish to apply, and the standards adopted for the judgment of an applicant's qualifications must be fair and objective.

In the United Kingdom, for example, where these practices have been followed since before the war, experience has been satisfactory and there has been a saving of time in the contracting processes, as well as avoidance of cases where contractors fail to carry out their obligation because of financial inability, incompetence or inadequate facilities. In the face of a large volume of varied work the development of such practice will take time,

and a considerable amount of skill is required to bring the qualification records into readily usable form. Acceptable contractors must be catalogued according to size, location and the particular skills they possess. A firm may be qualified for general building construction but completely unqualified for, say pipe-line construction. The practice in England is to invite tenders from qualified contractors in the area in which the work is to be undertaken, usually adding several outsiders as a check on any form of local collusion.

In their report on *Personnel Management* your Commissioners question the need, before making a civil service appointment, of scouring Canada to investigate the talents of every person who wants to be a civil servant. Your Commissioners take a similar view with respect to the obligation of government to advertise its every need for construction to the farthest corners of the land. While no specific recommendation is here offered with respect to a partial or complete abandonment of public invitations to tender, your Commissioners believe that the subject merits serious consideration and that the Department of Public Works should make objective appraisal of the matter, including a more detailed study than your Commissioners have found possible, of practices and experiences in other jurisdictions.

Finally, the relationships of the proposed common construction agency with its client departments and Treasury Board should be briefly considered. As a service agency, the Department of Public Works will have a basic duty to serve the needs of its clients by securing the efficient and prompt construction of the facilities they require. Planning and estimating by the departments on a programme basis places on Treasury Board the responsibility for deciding whether or not their requests are granted. It is therefore not open to the construction agency to question approved programmes nor challenge the need for the structures which have been approved. The Department of Public Works must have, however, substantial additional responsibilities if waste is to be avoided. First, by playing the part already described in the long-term planning process, it can render valuable advice and assistance to Treasury Board. As the repository of the government's "know how" in construction matters its criticism and suggestions of proposals cannot be ignored.

Further, in the face of the need for consistency, standards must be drawn up to cover such matters as the quality and cost of alternative types of construction, the allowance of floor space to accommodate civil servants of various ranks, the provision of accessory services such as elevators, conveyor systems, communications systems, loud speaker installation; lecture halls and theatres, and air conditioning. Some valuable work has been done

by an Advisory Committee on Accommodation Standards of the Treasury Board, but this field requires more intensive cultivation. The Department of Public Works, because of its experience, should carry the main burden of fact finding and investigation for the Treasury Board. Once standards are established, they can, in respect of new construction at least, be effectively policed only within the central construction agency. It should accordingly be looked to for the enforcement of such standards.

4

PROPERTY OPERATION—CIVIL DEPARTMENTS

The total floor space included in the many buildings owned or leased by the government today totals 180 million square feet, or over four thousand acres. Of this, no less than 140 million square feet, almost 80 per cent of the total, is held for the use of the Department of National Defence and managed by it. The Department of Public Works, with space in 2,850 buildings, manages approximately 30 million square feet (of which 15 per cent is held under lease), while the other civilian departments manage 11 million square feet for their special needs, such as air terminals, hospitals and penitentiaries.

The first set of Estimates for 1962-63 included for the first time information with respect to estimated costs of "accommodation" used by each department, and the costs attributable to properties managed by the Department of Public Works and the user departments, respectively. A summary of these Estimates for the civil departments is shown in Table 4.

STANDARDS OF ACCOMMODATION

The provision of adequate accommodation and congenial working conditions has direct impact on employee productivity and morale. Private business has long recognized this and in the past twenty years great strides have been made in improving working conditions of office and other employees. Improved standards of lighting and ventilation, better design and decoration

Table 4—ANNUAL OPERATING COSTS OF ACCOMMODATION—CIVIL DEPARTMENTS

	<i>In Respect of</i> <i>Property Managed By</i> <i>Public Works User Departments</i>	
	(\$000)	(\$000)
Post Office	23,000	—
National Revenue	9,000	200
Veterans Affairs	2,100	5,800
Transport	1,900	5,300
Unemployment Insurance Commission	5,300	—
Agriculture	2,500	1,400
National Health and Welfare	2,000	1,800
Mines and Technical Surveys	3,500	100
Northern Affairs and National Resources	700	2,800
Public Printing and Stationery	2,900	—
Penitentiaries	—	2,800
Citizenship and Immigration	2,000	800
Royal Canadian Mounted Police	1,200	1,500
National Research Council	600	1,800
 Total	56,700	24,300

of premises and facilities and, where needed, air conditioning have been the principal means of effecting this betterment. The government, particularly in its new construction, has taken note of this trend, but much of the space occupied by its employees remains, by modern standards, less than satisfactory. The policy with regard to air conditioning is an equivocal one. While new buildings in some areas are being provided with the duct work necessary, air cooling machinery has not been installed. This appears due less to the need to economize than to indecision. Your Commissioners wish only to observe that the widespread introduction of air conditioning in the warmer cities of Canada and the United States is based upon hard business considerations and finds financial justification in the improvement in productivity of employees.

In the Ottawa area the quality of accommodation varies considerably, with that in older government buildings and most leased premises being substantially inferior to that contained in the government's newer structures. In spite of acknowledging the advantages of modern standards of accommodation, as it does in its current construction, the government tends to rent space of medium and sometimes low quality. In view of the greater economy of operation possible in modern structures, as well as implications for employee

morale, the deliberate selection of second class space, because the rental is lower, may well be in many cases false economy. At present there is no single authority for the leasing of property. In Ottawa, the Department of Public Works makes all building leases for civil departments, but not for all Crown agencies. Elsewhere, individual departments lease property to a limited extent; and abroad, apart from London, England, the Departments of External Affairs and Trade and Commerce attend to most leasing operations.

Four and one-half million square feet of space are rented by the Department of Public Works and used principally for office and warehouse purposes. These premises are widely dispersed as shown by the following geographical analysis of rental payments made in 1961. Ottawa, where 27 per cent of the civil service and most of the major office buildings of the government are located, is shown separately.

Table 5—RENTALS PAID—1961

For properties located in:

Ottawa	\$ 2,680,000
Elsewhere in Ontario	1,640,000
Quebec	1,180,000
British Columbia	500,000
Alberta	450,000
Manitoba	300,000
Nova Scotia	270,000
Saskatchewan	230,000
New Brunswick	170,000
Newfoundland	70,000
Yukon and the Territories	10,000
Prince Edward Island	5,000
London, England	160,000
United States	20,000
	<hr/>
	\$ 7,685,000
	<hr/>

In discussing the planning of construction, reference was made to the need for standards to be set for such matters as space assigned to employees at varying levels of authority. Consistent adherence to such standards is also a continuing concern of property administration. The standards already established by the Department of Public Works are comparable with those used by major corporations, but efforts to enforce them meet with mixed results. In the nature of the problem a degree of compromise is at times required, but the need for economy as well as consistency renders it essen-

tial that the managing agency possess police power in this matter and exercise it. In cases where, due to changes in programmes, the space requirements of departments decrease, the authority of the management agency to reclaim and re-assign or dispose of the unneeded space must be respected.

A satisfactory solution of these problems requires the establishment of businesslike standards for building quality and amenities, applying to both leased and owned premises, as well as standards of space allocation covering office and other activities. As in construction standards, the final decisions must be made by Treasury Board to apply consistently through the service, but the onus for gathering the pertinent facts and making studies should rest on the Department of Public Works.

ADMINISTRATIVE PROCEDURES

A basic requirement of administration of real property is a good system of records and accounts, and proper financial reporting. A complete inventory of the properties, with additions and disposals promptly reflected therein, is essential. So, too, is an accounting system designed to provide the information needed for management, on a current basis. In addition to monetary records kept on an accrual basis and reflecting depreciation, detailed records are required on a quantitative basis. The elementary records at present in use are totally inadequate for management purposes and even their most serious deficiencies are not made good by alternative procedures. In the matter of vacant space, which needs close supervision, no regular reports are made, and the accounts kept on the usual government cash basis provide no clue as to current cost.

A test carried out for your Commissioners discloses that on a selected date in 1961 there were 2,347,000 square feet of vacant space in the office buildings occupied by the government. About half of this was basement area, but the annual value of the balance was estimated at \$1,600,000. Information of this sort is needed constantly in property assignment and re-assignment and for prompt identification of excess property and surplus disposal.

In other reports of your Commissioners, the principle has been enunciated that the users of major common services should be charged therefor. Only thus will departments be aware of the monetary consequences of their space requirements. Moreover, such information is required for proper costing of their programmes. The inclusion of accommodation cost calculations in the 1962-63 Estimates, already referred to, is a step toward this goal. In the view of your Commissioners, however, an actual accounting distribution of

all elements of cost is required, with the user departments meeting such charges from their own appropriations.

Two operating practices in connection with building operation require brief comment. In your Commissioners' report on *The "Make or Buy" Problem* reference is made to cleaning operations upon which \$9 million are spent annually. For government buildings in the Ottawa area the annual cleaning bill is \$2,600,000 with 2,800 persons employed, mostly part-time. Unit costs of government cleaning operations have been improved considerably in recent years, but investigation shows that further savings, at least a million dollars a year, can be made through contracting out this function. New government buildings are being equipped with automatic elevators which, through savings in labour and power and greater efficiency, generally pay for their added cost in less than ten years. There remain in use over 600 manually-operated elevators in government buildings, the operators of which are currently paid in a scale of \$2850 to \$3300 per annum.

The central conclusion arising from your Commissioners' studies is that the task of managing real property for all civil departments and agencies, and those properties within the Department of National Defence which it can efficiently service, should be entrusted to the Department of Public Works. A delegation of some of its responsibilities for operating details and supervision will be necessary in certain cases, but the ultimate responsibility for the whole function should be carried by Public Works. To discharge this duty satisfactorily a more adequate organizational pattern will be required, including delegation to appropriate groups of responsibility for conduct of specific functions. In the field of record keeping and financial reporting a major effort is required. In certain matters, such as leasing and surplus disposal, land and building aspects can probably be merged. While these proposals represent a major transformation of the existing pattern, the monetary savings to be gained will pay for any added costs many times over.

Because of its relation to real property management and its implications for the costs of property operation, the *Municipal Grants Act* which provides for payments in lieu of municipal taxes on federal property might logically come under the administration of the Department of Public Works, instead of its present location in the Department of Finance.

We therefore recommend that: 1 The Department of Public Works be made responsible for real property management throughout the public service, excepting the management of property held by and presently managed within the

Department of National Defence and by the large independent proprietary corporations.

- 2 The administration of the *Municipal Grants Act* be assumed by the Department of Public Works.
- 3 Departments and agencies be charged for accommodation and real property services rendered them by the Department of Public Works.

FOREIGN OPERATIONS

In London, England, the Department of Public Works manages the property function, and in Washington and, to a lesser degree, Paris where a number of federal departments and agencies maintain offices. Elsewhere abroad the Departments of External Affairs, Trade and Commerce and Citizenship and Immigration are those principally involved. Some important properties are owned but more are leased. At present properties are held under lease in 104 different places outside Canada. Except in London, these leases are negotiated by the individual departments concerned.

The recommendation for a single agency to perform the real property management function, except in the purely defence sector, is intended to apply to foreign operations as well as domestic. The need for delegation of some functions is somewhat greater in foreign operations because of the remoteness of the locations. Construction, purchase and disposal are susceptible of but a small degree of delegation outside the Department; but certain leasing activity and housekeeping duties such as cleaning, minor repairs, the local purchase of supplies, and so on, should be delegated to the senior officer of the major Canadian element in the locality and carried out under his supervision. In such matters, the local officer would be answerable to the Department of Public Works, not to the department of which he is a member.

5

DEPARTMENT OF NATIONAL DEFENCE

The present organization for real property management in the defence sector is somewhat complex and entails a considerable amount of unnecessary duplication. The dimensions of the task are imposing and involve the management of six million acres of land and some 1,900 properties or groups of properties, exclusive of overseas installations arising from N.A.T.O. commitments. Expenditures of the Armed Forces in 1960-61 for acquisition and upkeep of lands, buildings and works totalled \$118.3 million.

Reference has already been made to the services rendered by the Department of Public Works in attending to the acquisition and operation of office and general purpose type buildings required by the Department of National Defence. Your Commissioners believe that such arrangements should be continued. The following discussion treats exclusively with real property of the types at present in the control of the Department of National Defence.

PLANNING AND CONSTRUCTION

The planning of construction programmes is carried on separately by each of the Armed Forces. A central committee, the Construction Programme Service Committee, of which the chairman is an assistant deputy minister of the Department, scrutinizes the several programmes and recommends to higher authority those which it approves. When projects are finally sanctioned,

plans and specifications are prepared by the individual Services and passed to the construction authority.

There are four separate patterns of construction, with four outside agencies involved in various phases:

- (a) Projects which can be executed by Service personnel and equipment are carried out by the Services themselves, with procurement of materials and equipment by the Department of Defence Production.
- (b) Projects contracted out are handled by the Department of Defence Production, using for the purpose Defence Construction (1951) Limited, a Crown corporation.
- (c) Housing construction is carried out by Central Mortgage and Housing Corporation.
- (d) Aerodromes are built and extended under the direction of the Department of Transport.

Substantial numbers of professional and technical personnel are regularly employed in the several Services and defence agencies, as shown by Table 6.

Table 6—REAL PROPERTY PLANNING AND CONSTRUCTION—DEFENCE AREA, NUMBERS OF PERSONNEL EMPLOYED—1961

	Architects	Engineers	Supporting Staff		Total
			Service	Civilian	
Navy	5	10	5	12	32
Army	12	26	35	44	117
Air Force	31	76	92	122	321
Defence Production and Defence Construction (1951) Limited ..	—	88	—	299	387
	48	200	132	477	857
	=====	=====	=====	=====	=====

The findings reported in Chapter 3 with respect to the undesirable results of fragmentation of specialist staffs have equal relevance here. The mixture of uniformed personnel and civilians accentuates some of the problems.

OPERATION AND MAINTENANCE

Annual costs of operating 140 million square feet of space in buildings—eighty per cent of all government holdings—amount to approximately \$54 million. This function is performed by the individual Services, employing mixed staffs of which the majority are civilians. The problems of management and housekeeping for this large group of properties—armouries, barracks, colleges, depots, dockyards, hospitals, recruiting centres, training camps—presents few special difficulties and lends itself to economical performance by a single organization. Inevitably, therefore, the employment of three independent groups results in overlapping, duplication and waste. This is particularly noticeable at supervisory and control levels. There is also evidence of a degree of overstaffing and excessive accumulation of materials and supplies.

As in the civil departments and agencies, the need for development of organized administration for this task has hardly been recognized. Procedures generally, accounting, space records, and direct assignment of responsibility for the several functions to be performed, are less than satisfactory. While the relative efficiency of the several Services in this regard varies somewhat, the performance of the best is far from reflecting the businesslike approach which is required.

ORGANIZATION

Your Commissioners have considered several possible methods of bringing about improvement in the management of real property in the defence organization. Having regard to the recommendations already made to constitute the Department of Public Works the common real property agent for other departments, the simplest solution might lie in having that body assume also the responsibility for defence real property. While this may ultimately be done, there are several reasons why a more gradual approach may be preferable. One is the part now played by Service professional and technical personnel, the absorption of whom into an outside civilian agency will not easily be accomplished. Another relates to security aspects of certain construction and existing installations. A third, and perhaps the most telling, is the size of the job and the far reaching nature of the changes required to bring real property management to a state of efficiency.

An alternative which carries a greater hope of success is to unify the activities now carried on separately by the Armed Services by a consolidation of planning, construction, acquisitions, disposals, and operation and mainte-

nance within a single bureau under the administration of the Deputy Minister of National Defence. Under such a plan, the continued participation of the Department of Defence Production in contracting would no longer be appropriate and Defence Construction (1951) Limited could be merged with the new bureau.

In many respects the proposed body would resemble the Department of Public Works. Both would be common service agencies with similar responsibilities to a group of client organizations. Both will have to create a businesslike organization and the comments upon the needs of management in preceding chapters have equal application to the defence real property agency. Like Public Works, it will have to delegate some of its responsibilities to its clients, probably on a more extensive scale. In view of this community of interest, close relations should exist between the two bodies—easy communication and consultation on common problems, and free interchange of information. The duty of keeping Public Works currently advised of changes in property holdings for perpetual inventory purposes will rest with the suggested agency.

One function, the responsibility for which should remain within a single organization if it is to be successfully performed, is disposal of surplus real property. Before property excess to the needs of one department is disposed of, its possible reassignment to other government use should be explored. It is therefore suggested that the responsibility of the defence real property agency in respect of property no longer required should be to identify it promptly and declare it excess to defence requirements. Thereupon, the Department of Public Works, after canvassing reassignment possibilities, would declare it surplus to government requirements and dispose of it.

Special construction requirements such as housing and aerodromes, which are now performed for the Armed Services by other departments and agencies, should continue to be met through non-defence agencies. The responsibility for specialist activities of this sort, however, should be borne by the Department of Public Works. Delegation of any part of this responsibility may be warranted when deliberately undertaken for the purpose of improved performance, but the dangers of unnecessary and wasteful duplication of men or materials should be recognized and avoided.

The Armed Services conduct real property operations overseas in support of their forces stationed abroad. With the proposed centralization of similar operations in Canada under the Deputy Minister of National Defence, consideration should be given to the extent to which the new central agency can usefully participate in foreign operations and what type of organization may be desirable for such purpose.

- We therefore recommend that:*
- 1 A real property organization or bureau be established under the supervision of the Deputy Minister of National Defence to manage the acquisition, construction and operation of real property of the classes now within the control of the Department and the Armed Services.
 - 2 The personnel and functions of Defence Construction (1951) Limited be transferred to the new organization and, unless there is continuing need for a separate corporate body, its charter be surrendered.
 - 3 Total responsibility for contracting for real property construction be assumed by the new organization, without intervention of the Department of Defence Production, but real property services, including construction, now rendered the Armed Services by other departments and agencies be provided through the Department of Public Works.

6

THE NEW ROLE OF THE DEPARTMENT OF PUBLIC WORKS

The recommendations already made in this report will, if adopted, substantially increase the areas of responsibility and scope of operations of the Department of Public Works. To perform its new duties effectively your Commissioners believe that its future activities should be limited to those of a common service agency without conducting, as it does now, certain programmes of its own. The need to create a suitable organization for the conduct of real property management has already been referred to and need not be repeated, but brief reference should be made to the need of the department for authority to delegate part of its functions in certain cases. The principal area in which delegation will be appropriate is in respect to certain maintenance and housekeeping functions of properties in Canada and abroad which are remote from the facilities of the department. In addition, in certain particular cases, it may be wise to delegate specific functions to specialized agencies. An example of this is the recommendation that the National Parks Commission be empowered to lease lands and conduct land transactions within the national parks.

The bodies principally to be affected by your Commissioners' recommendations for centralization of construction are the Department of Transport which now carries on a considerable volume of marine and airport construction, the Department of Northern Affairs and National Resources, and, in respect of the construction of dwellings, Central Mortgage and Housing Corporation. The consolidation of such activities under the Department of

Public Works constitutes an important element of the economies to be achieved.

FUNCTIONS TO BE DISCONTINUED

Among its existing duties the Department of Public Works conducts programmes designed to serve the public rather than other departments of government. Because no other department or agency is directly involved, these programmes can be regarded as being initiated and administered as part of its own responsibility. In this respect they lie beyond the functions properly to be carried out by a common service agency and consideration must therefore be given to the transfer of responsibility for their administration to other departments or agencies. In the summary listing of such activities given below the Trans-Canada Highway functions are omitted because, apart from work in the national parks, construction is carried out by the provincial governments and, in any event, the work is nearing completion. It will be observed that all the under-noted functions have a common character in that they are related to water. The Department, on its own responsibility, conducts the following activities:

- constructs wharves, piers, breakwaters and other harbour facilities;
- dredges channels and harbours and constructs protection works along the banks of navigable rivers;
- constructs and operates graving docks, locks and dams; and
- performs certain functions in connection with interprovincial and international bridges.

In another report your Commissioners refer to the division among various departments and agencies of the responsibility for marine and maritime activities. The St. Lawrence Seaway Authority, the Department of Transport and the National Harbours Board, as well as the Department of Public Works, are all conducting activities of this nature, which results in a degree of overlapping and duplication. A reassignment of the various responsibilities in this field is undoubtedly desirable and should be carried out in such manner as to remove from the Department of Public Works any responsibility for the determination of need or for the administration of such programmes. However, to the extent that the future operations of these various organizations involve acquisition, construction, maintenance, upkeep or disposal of real property, the Department of Public Works, as the exclusive

common service agency, should perform the necessary tasks. Your Commissioners note in passing that in their view dredging operations, while having to some extent the character of engineering works, should not be considered a function of real property management nor, in any respect, a continuing responsibility of the Department of Public Works.

One other present duty of the Department of Public Works, which has no real relationship to real property management, is the purchasing and distribution to departments and agencies of office furniture. It is recommended in the *Purchasing and Supply* report that this function be transferred to a centralized procurement agency to be created through the expansion of the present Department of Defence Production.

DECENTRALIZATION AND FIELD ORGANIZATION

The extent to which future activities of the Department of Public Works should be decentralized cannot be categorically stated at this time. While in general there are obvious advantages in transferring to the field certain operational functions and thereby improving the efficiency with which the needs of client departments and agencies in the field may be met, the extent to which the user departments themselves delegate authority to the field has a direct bearing upon what may be appropriate. Based on experience elsewhere, however, your Commissioners believe that a fairly substantial delegation of authority to responsible officers in the field will be found desirable.

The Department now is organized into four operational branches, three of which are engaged in engineering and construction and the fourth in property and building management. Regional offices are maintained in Montreal and Edmonton and the department has eighteen district offices scattered across the country. Current policy looks to an increasing degree of delegation. The recommendations made herein will bring about not only a significant increase in personnel and facilities but an enlargement of administrative procedures to provide for essential management services not now being performed, such as accounting, scrutiny of space availability and vacancies and aggressive surplus disposal. In these circumstances a pattern of five or more strong regional offices, each with such satellites as may be required, will probably prove most satisfactory.

In setting up such an organization the central problem is the extent to which authority is delegated. Too little delegation can destroy the effectiveness of the organization, create unreasonable delay and inflate costs. Care must be taken, above all, to ensure that the standard of senior field personnel is such that a reasonable degree of autonomy may safely be entrusted

to regional offices. In the field as at headquarters, effective safeguards will be required against improper influence coming to bear on any part of the whole range of real property management. Ideally, subject to established limits, regional offices should be able to arrange leases, negotiate contracts and supervise construction in their areas. They should be of particular value in the disposal of surplus property as well as problems of reassignment. They should be able to deal with the local representatives of user departments in their areas in planning and design of local facilities. In the administration of the *Municipal Grants Act* the need for country-wide consistency in dealing with municipal authority suggests that such function should be reserved to departmental headquarters.

In all the circumstances, your Commissioners believe that the Department should feel its way rather than attempting to blueprint its organization in detail at the outset. The importance of achieving finally a proper organizational structure must not be minimized but the dangers of allowing matters to get out of hand must be guarded against. In conclusion your Commissioners believe that the adoption of their recommendations in the field of real property management can effect very substantial economies in operation and possibly liberate a surprisingly large sum for other government purposes through an effective programme of surplus disposal.

6 PURCHASING AND SUPPLY

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 6: PURCHASING
AND SUPPLY

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	75
1 INTRODUCTION	77
Objectives	78
2 PURCHASING—CIVIL DEPARTMENTS AND AGENCIES	82
Regulation of Purchasing	82
Number and Location of Purchasing Offices	83
Determination of Requirements	86
Purchasing Organization	87
The Tendering Process	88
Lack of Standardization	88
Purchasing Expense	89
Exceptions to Departmental Purchasing	90
Appraisal of Civil Purchasing	91
Appraisal of Requirement Determination	92
Appraisal of Delivery Intervals	93
Appraisal of Tendering Practices	94
Appraisal of Purchasing Expense	94
Appraisal of Existing Central Purchasing Agencies	95
Lack of Routine Transfer Methods	96
Conclusions	96
3 MATERIALS MANAGEMENT—CIVIL DEPARTMENTS AND AGENCIES	99
Description of Civil Materials Management	99
Receipt and Acceptance	110
Storage and Issue	110
Distribution	111
Departmental Warehousing Organization	112

Appraisal of Civil Materials Management	113
Conclusions—Civil Materials Management	115
4 PROCUREMENT AND MATERIALS MANAGEMENT FOR DEFENCE	116
The Nature of Defence Procurement	117
Defence Procurement	120
Role of the Department of National Defence	122
Department of Defence Production Procedures	124
Relations with Suppliers	125
Appraisal of Department of Defence Production	131
Materials Management in the Defence Sector	133
5 CONCLUSIONS AND RECOMMENDATIONS	138

ACKNOWLEDGEMENTS

The detailed investigation of the purchasing and supply activities of the federal government was undertaken by a Project Group under the direction of Leeds M. Nelson, B.COM., C.A., Partner, *McDonald, Currie & Co.*, Montreal.

A number of Project Officers were associated with this endeavour, and your Commissioners, in recording their names below, wish to acknowledge the assistance received:

Douglas A. Gillespie, *Northern Electric Company Limited*, Montreal.

Robert C. Murdoch, *Canadian Pacific Railway Company*, Toronto.

P. F. Padberg, formerly with *Canadian National Railways*, Winnipeg.

Edward F. Stevens, F.C.A., A.C.W.A., F.R.EC.S., A.R.Ae.S., Oakville, Ontario.

Hector D. Wright, *The E. B. Eddy Company*, Hull, P.Q.

Your Commissioners also benefited from the views of an Advisory Committee, under the chairmanship of C. R. Snell, Vice-President, Purchasing, *Dominion Steel and Coal Corporation, Limited*, Montreal. The members of the Committee were:

Wilbrod Bherer, Q.C., *Bherer, Juneau & Côté*, Quebec.

Charles Gavsie, C.B.E., Q.C., *Howard, Cate, Ogilvy, Bishop, Cope, Porteous & Hansard*, Montreal.

R. A. Hobday, *Marshall Wells of Canada Limited*, Winnipeg.

A. R. Oliver, *The Steel Company of Canada, Limited*, Hamilton.

W. Dent Smith, LL.D., *Terminal Warehouses Limited*, Toronto.

T. E. Stephenson, *Canadian Pratt & Whitney Aircraft Co. Ltd.*, Montreal.

R. C. Vaughan, C.M.G., D.S.C., *Commonwealth International Corporation*, Montreal.

A number of briefs and submissions bearing on this subject were considered and these are duly recorded in the final volume of your Commissioners' reports.

Your Commissioners, in acknowledging the assistance and advice received, dissociate all those named above from any of the findings and conclusions contained in this report; for these, your Commissioners assume full responsibility.

1

INTRODUCTION

In the year 1960 the Government of Canada spent more than \$1 billion for materials, supplies, equipment and services. In its warehouses across Canada it holds inventories worth between one-half and three-quarters of a billion dollars. The annual costs involved in the purchasing and handling of these vast stores cannot be accurately determined, but the costs of operating the large existing warehouse complex and of financing these huge inventories are substantial. They represent, in fact, a considerable proportion of the \$7 billion total federal budget.

No other organization in Canada rivals the federal government in the wide range of its annual purchases, in the scale of its warehouse requirements, or in the value of its purchases. These vary from paper clips and pencils to icebreakers and jet aircraft, from missiles to school books, and from gasoline to milk. Four-fifths of the huge total is represented by purchases for the Department of National Defence. Among other departments and agencies, those with the largest volume of requirements are the Departments of Transport, Public Printing and Stationery, Public Works, and Veterans Affairs, Atomic Energy of Canada Limited and the National Harbours Board.

At first glance, the purchasing operations of the federal public service appear dispersed and unco-ordinated. The basic pattern is that each department purchases for its own account and, subject to the formal requirements of the *Financial Administration Act* and Treasury Board regulations, each establishes its own machinery and rules. The result is that in 1960-61, 29

departments and agencies carried on their purchasing through 156 offices, located in twenty-eight different centres across Canada.

First appearances are, however, somewhat misleading. Much of the procurement operation is in reality centralized, because almost the whole of the purchases for National Defence—some \$863 million out of government purchase orders totalling \$1,063 million for the calendar year 1960—were placed by the Department of Defence Production, which is the statutory purchasing agent for the Department of National Defence. Moreover, the Department of Public Works and the Department of Public Printing and Stationery perform central purchasing roles for other departments and agencies. The former purchases, supplies, and maintains all office furniture. The latter is the central procurement agency for printing, stationery, office forms, and office machinery of all kinds and, in addition, conducts a maintenance programme for office equipment. In 1960, these two central purchasing agencies accounted for \$34 million of purchases. The numerous and widely dispersed offices of other departments were thus collectively concerned with no more than fifteen per cent of the government's total procurement operations.

The warehousing and materials-handling operations are unduly dispersed and fragmented. In 1960-61, the government operated 248 principal warehouses and 340 sub-stores, located in 79 centres in Canada and a few places abroad. Most of these were operated by civilian departments and agencies but, in value terms, an overwhelming proportion of the total inventories was held in the 37 warehouses of the Navy, Army and Air Force.

OBJECTIVES

The procurement and handling of materials in every large organization offer opportunities for extravagance, waste and inefficiency. Your Commissioners have reached a number of conclusions about the effectiveness of the federal government's operations in these areas but, before they are stated, it will be useful to identify objectives which should guide the government's procurement and materials management operations, and also to note special aspects of the task that are peculiar to government.

As in any other purchasing and materials-handling operation, a primary objective is to have the right materials, supplies and equipment available in the appropriate amounts at the right times and places. A procurement system that fails to pass this test is costly and wasteful. It is equally important to adopt procedures for purchasing and handling materials and supplies that achieve satisfactory results at minimum cost. There are many drains through

which dollars can disappear: purchase prices may be too high; purchase orders may be too small; specifications may be unnecessarily detailed; too much may be paid for transportation; materials delivered unnecessarily into warehouses may have to be handled, stored, and reshipped; warehouses may be wrongly located in relation to supply points or points of ultimate use, or they may be larger than necessary, too costly, insufficiently used (because of low turnover or poor use of space), ill equipped for efficient handling of stocks, or inexpertly or extravagantly manned. High costs may be incurred either in shipment handling in warehouses, in shipping and storage damage, or in excessive losses resulting from deterioration or obsolescence due to overstocking.

Genuine economy demands that each element in the total process—from the initial anticipation of a requirement until the material or equipment is finally in use—be seen not as an isolated operation but as one stage in the process. Efficiency and economy can be measured only in terms of performance at all stages combined. A good price at the supply point can be more than offset if too much freight or too many handling charges are paid, either directly or indirectly, before the materials reach the point of use. A system that focuses on economy at one stage to the neglect of, or even at the expense of, economy at other stages of the process is not only unrealistic but costly and ineffective. A procurement and materials-handling system involving more than 2,000 purchasing officials in 156 purchasing offices, and the movement of materials, equipment and supplies through more than 250 warehouses would be suspect on these grounds, even if only a few static items were handled. The dangers are unquestionably greater when such a complex structure handles a flow of equipment, materials, and supplies of almost every kind produced in the country or abroad.

Large commercial organizations have found that procurement activities can be dealt with effectively only by specialization—most frequently on a basis of partial or complete centralization. They have found that the rationalizing of transportation and warehousing is a business activity having general principles applicable to almost any product or supply situation. The dimensions of a warehouse, the equipment it requires, the utilization of space for aisles and for stock, the determination of economic order quantities and frequencies, and all of the paperwork involved, are matters that demand a specialized knowledge which is applicable to the materials-handling field generally.

Above all, economies and greater efficiency accrue from pooling requirements wherever possible; first at the procurement stage, then in pooling transportation, and finally in warehousing facilities. This pooling may be regional, departmental, or across the entire organization. Its purpose is to obtain the advantages of scale, to minimize or eliminate duplication and over-

lapping of effort, to gain the price advantage that comes from massed purchasing power, and to make use of procurement and materials-handling skills by providing volumes sufficient to justify the employment of specialists.

None of these broad policy objectives necessarily suggests that it is inappropriate for a single department of the federal government to handle its own purchasing and warehousing. However, the question still remains: is this the most appropriate way to ensure that departmental personnel and operations are efficiently and economically furnished with needed materials and supplies? There is also the question whether dispersion of procurement and material-handling bars the employment of properly experienced and qualified specialists.

A department may argue that it dare not relinquish the right to purchase and stock for its own needs because otherwise it would encounter costly delays and unsatisfactory products. But the answer is that a professional purchasing agency, with a genuine service orientation to its clients, can be counted on to do a better job. This has been achieved in almost all large organizations outside the public service, including many whose range of requirements (if not quantities), geographic dispersion, and need for speed, parallel those of the federal government.

The government may occasionally have to consider various extraneous factors when placing orders for equipment, materials and supplies. Once again, however, its position is not unique. Even a private business organization must take into account factors other than its desire to meet its material and equipment needs efficiently and economically. It will, on occasion, have to consider the importance of reciprocal business with its potential suppliers. It may find it advantageous in terms of good public relations or good government relations to consider the effects of its purchasing pattern on the economy—locally, regionally or, where import competition is a factor, nationally. But, where the economic implications of its purchasing pattern are at issue, a private business organization is, in the absence of government direction, rarely expected to make a significant financial sacrifice.

The government's position in respect of these extraneous considerations is not identical with that of private business. First, there is the danger that patronage may enter into purchasing decisions. At all levels of government there is pressure to influence purchasing for the personal advantage of individuals, for electoral advantages in constituencies, and for partisan advantage. This is a special and common hazard in government procurement procedures. In addition, government shares with private organizations the constant hazard that officials may make decisions for their own advantage or that of friends and associates. An effective procurement system

for the public service must be on guard against these hazards without exacting an unnecessarily high price in terms of cumbersome procedures, costly delays, or undue rigidity.

2

PURCHASING—CIVIL DEPARTMENTS AND AGENCIES

REGULATION OF PURCHASING

Until 1951, only procurements for National Defence were regulated by statute. Other departments faced a ceiling of a few thousand dollars with respect to construction contracts, but none with respect to procurement. The *Financial Administration Act* brought all departments within general regulations.

Purchasing controls on departments and agencies stem from Section 39, which provides that:

The Governor in Council may make regulations with respect to the conditions under which contracts may be entered into and, notwithstanding any other Act,

- (a) may direct that no contract by the terms of which payments are required in excess of such amount or amounts as the Governor in Council may prescribe shall be entered into or have any force or effect unless entry into the contract has been approved by the Governor in Council or the Treasury Board . . .

Under the authority of this section, the Government Contracts Regulations were established by P.C. 1954-1971 of December 16, 1954. These regulations set forth the circumstances in which tenders must be called for before purchase contracts may be entered into. The governing direction is:

Before any purchase contract is entered into, the contracting authority shall invite tenders therefor, except where

- (a) the need is one of pressing emergency in which delay would be injurious to the public interest,
- (b) there is only one available source of supply, or
- (c) the estimated expenditure involved does not exceed fifteen thousand dollars and it appears to the contracting authority, in view of the nature of the purchase, that it is not advisable to invite tenders.

The regulations also specify the circumstances in which departments may enter into purchase contracts on their own authority, and those where Treasury Board approval of a contract is required. The general tenor is that Treasury Board approval of a contract is *not* required where:

- . The contract does not exceed \$15,000.
- . At least two tenders have been obtained, the lowest accepted, and the contract does not exceed \$25,000, but any increase thereto may not exceed \$2,500.
- . A contract is approved by the Treasury Board—any increase thereto up to the lesser of (i) 10% of the amount approved by the Board or (ii) \$15,000.

While the foregoing framework is applicable generally, variations apply to Crown corporations, commissions and agencies, many of which have relatively greater freedom from the obligation to obtain Treasury Board approval. The degree of autonomy in procurement enjoyed by such agencies is occasionally set out in the statutes under which they are established or, more frequently, in the Orders in Council applying to them individually.

NUMBER AND LOCATION OF PURCHASING OFFICES

Since many departments have widely dispersed purchasing activities, there is a large number of government buying offices. This is illustrated in Table 1, which indicates that the twenty-three civil departments and agencies used for review purposes by the Commission spend annually about \$180 million from eighty-three purchasing locations. However, nearly all departments also do a certain amount of local buying in the field through offices where no purchasing organization exists.

It will be seen that there are wide variations in the nature of the purchasing organization among the departments and agencies listed in Table 1. Some departments buy their complete requirements (except small or emergency items) through one central purchasing office located in Ottawa, whereas others have as many as seventeen buying offices across the country. The degree to which buying is centralized geographically within some departments that operate from coast to coast is surprising. Examples are the Department of Northern Affairs and National Resources and the Post Office. In the Ottawa-Hull area, twenty out of twenty-three departments surveyed maintain their own buying offices; in addition, some departments have separate buying offices for some of their branches. Centralized buying for

Table 1—ANNUAL PURCHASE ORDERS PLACED BY REVIEWED CIVIL DEPARTMENTS AND AGENCIES, BY LOCATION†
 (in millions of dollars)

* Purchasing at these locations amounted to less than \$50,000.00.

These were the latest available figures reported on a questionnaire but they were not for identical periods.

the government as a whole does not exist, but there is geographical centralization of purchasing activities, with orders placed ranging from approximately \$200,000 to over \$42 million.

The twenty-three departments used in the survey have buying offices in twenty-eight cities and towns. To illustrate, six departments have buying offices in Halifax which purchase about \$1.5 million a year; Quebec City has four, purchasing a total of \$1.2 million annually; five offices in Montreal together make purchases of \$5.4 million; Vancouver, with four such offices, purchases a total of \$2.3 million a year.

DETERMINATION OF REQUIREMENTS

The function of purchasing requires in government the same knowledge, skills and practices as in business but, for a number of reasons mentioned below, government purchasing is handled with a good deal more formality and usually with considerably less speed.

In government the statement of the requirement itself presents greater problems than in industry because, in addition to seeking the most economical purchases, government must also demonstrate impartiality. Therefore buying by brand name is frowned upon and buying by specification encouraged.

Deciding what to buy is simple where items in general use are involved. It becomes difficult when, for example, scientific equipment is involved. The ultimate user must decide what is required, yet he may not be the person best qualified to define needs in terms the supplier can properly understand. Because the determination of the requirement is important, because in some cases the determination itself is difficult, and because in all cases there must be a definition of what is required, various government bodies originate specifications. They include:

- Canadian Government Specifications Board
- Department of Public Works
- National Research Council
- Various departments requiring materials for their own use.

The function of the Canadian Government Specifications Board is solely to define and standardize requirements. The Department of Public Works has a like role, although it also takes part in the decision-making process. The others are concerned mainly in deciding what to buy, and specification is a part of the process.

Because buying by brand is discouraged in the government, there is a need for more precise definitions of requirements than are found in industry, where no such inhibitions exist. In fact, it was the need for impartiality that led to the creation of the Canadian Government Specifications Board in 1934 to:

Undertake at the request of government agencies the preparation of specifications in commodity fields and for materials, processes and equipment in which any of these agencies may be interested. In addition, and as a necessary supplement to this undertaking, the Board may arrange testing and research work to develop information to be used in preparation of specifications and test methods.

The Board is composed of the deputy heads of twenty-five departments and agencies of government, with the President of the National Research Council as Chairman. By the end of 1961, a total of 1,052 specifications were in circulation, but these are not used by all departments. Some departments use government specifications to the greatest possible extent, while others do not make much use of them.

Inspection, which is inherent in the receipt and acceptance of the goods, gives rise to much duplication of expensive facilities, and these are not fully employed. While there is some interdepartmental testing, it was found, for example, that there is much duplication of inspection activities and facilities between the Departments of National Defence (Inspection Services) and Public Works.

Little effort is made to co-ordinate and consolidate for the purpose of minimizing costs. In many cases, one piece of costly testing equipment could serve most, if not all, agencies of government, whereas under present circumstances a number of identical pieces are in use. Steps should be taken to avoid any further build-up of duplicate inspection equipment.

PURCHASING ORGANIZATION

Subject to purchase limits set by the Treasury Board, departments have established their own practices and levels of authority in almost complete independence. There is no uniformity of purchasing authority or practices in the government. For example, a few departments have seventeen buying offices across the country, but fourteen others conduct the entire purchasing function, with the exception of small items, from national headquarters and the extent to which local offices are permitted to buy is strictly limited. In one department which has a large number of operating (not purchasing) offices, the authority of the senior local representative is limited to purchases not exceeding \$25.

THE TENDERING PROCESS

The desire to demonstrate impartiality in purchasing induces the government to require written quotations to a much greater extent than is commonly found in industry. Some departments distinguish between quotations and tenders, but for purposes of this report they are considered to be the same. The tendering process is used for almost every sizeable purchase and for many very small ones. One agency, for example, requires competitive quotations only when the amount exceeds \$200, but some departments require quotations in writing for purchases involving \$1.

Varying procedures are followed by different departments in dealing with tenders. That adopted most commonly may be described generally as follows: when the purchasing branch receives an approved request to purchase, an Invitation to Tender is prepared and may be sent to as many as twenty or thirty possible suppliers; if the amount of the purchase is small, circulation may be limited to suppliers in the area where the article is needed. A few departments sometimes advertise in the press.

The Invitation to Tender describes the articles required in some detail, and may quote government specification numbers if any exist. The possible suppliers are usually given about two weeks to submit quotations. In departments where there is a large volume of purchasing, sealed tenders only are accepted so that each bidder is protected until the moment the tenders are opened. Sometimes bids are opened in public, so that all interested may know the amounts quoted. Other departments merely inform losing bidders that their offers were not accepted.

If the low tender is accepted—as is usually the case—the purchasing branch issues a purchase order or contract. Where the low bid is not accepted for one reason or another—for example, where the bidder does not undertake to meet the specifications exactly—several persons participate in the rejection so as to establish a record demonstrating that the department was neither partial nor careless with public money.

LACK OF STANDARDIZATION

There is no standard government purchase contract. For example, no standard wording is used to place the onus for a possible patent infringement on the supplier and to absolve the government from any responsibility in this respect.

Departments and agencies have such varied policies and practices concerning buying, delegation of authority, and tendering procedures, that each system inevitably bears the stamp of departmental individuality. Procedures and methods range from simple to complex; in some departments there are

as many as thirty-eight steps in processing a purchase order and in others less than twenty. These variations in organization, methods and procedures significantly affect the costs of purchasing.

PURCHASING EXPENSE

A comparison of salary costs in purchasing offices, taken as a proportion of the cost of items purchased, revealed a wide variation between departments. Salary costs varied from a low of 44 cents per \$100 purchased to a high of \$3.85. The average size of orders varied from \$44 in one department to \$1,385 in another. The full range of costs for the departments reviewed is shown in Table 2.

*Table 2—SALARY COSTS OF PURCHASING PERSONNEL**

(Sample of 23 Departments or Agencies)

<i>Department or Agency</i>	<i>No. of Offices in Sample</i>	<i>Purchase Orders Issued Number</i>	<i>Average Value (\$000)</i>	<i>Size of Order</i>	<i>Salary Cost per Order</i>	<i>Salary Cost per \$100 Purchased</i>	<i>Total Salaries (\$000)</i>
Veterans Affairs.....	17	58,236	11,646	\$ 199	\$ 7.54	\$ 3.85	439
Trade and Commerce.....	1	6,338	754	119	3.76	3.16	24
R.C.M.P.....	1	4,250	3,250	765	18.69	2.41	79
National Gallery.....	1	1,100	200	182	4.28	2.35	5
National Research Council.....	1	39,000	8,000	205	4.77	2.33	186
National Film Board.....	1	6,650	1,740	262	5.51	2.11	37
Mint.....	1	960	285	297	5.91	2.00	6
Fisheries.....	3	20,756	911	44	.76	1.74	16
External Affairs.....	1	5,200	1,664	320	5.56	1.73	29
Post Office.....	1	2,571	3,562	1,385	22.79	1.65	59
Mines and Technical Surveys.....	3	21,010	6,130	292	4.76	1.63	100
Penitentiaries.....	1	12,300	4,500	366	5.72	1.56	70
Health and Welfare.....	1	9,096	5,187	570	7.86	1.38	71
Revenue.....	1	1,000	1,000	1,000	13.80	1.38	14
Northern Affairs and National Resources.....	2	21,293	10,927	513	6.99	1.36	149
St. Lawrence Seaway.....	3	5,936	3,133	527	7.00	1.32	42
Public Printing and Stationery.....	1	44,000	18,000	400	4.50	1.09	198
Transport.....	13	63,712	44,505	746	7.27	.97	463
Public Works.....	17	32,809	15,774	481	4.30	.89	141
Atomic Energy.....	2	28,000	17,000	601	4.85	.79	136
Citizenship and Immigration.....	1	4,123	4,440	1,077	7.54	.70	31
National Capital Commission.....	1	7,500	1,000	133	.75	.56	6
National Harbours Board....	9	13,330	12,974	973	4.24	.44	57
TOTAL.....	83	409,170	176,582	\$432	\$5.76	\$1.34	2,358

* These were the latest available figures reported on a questionnaire but they were not for identical periods.

With one exception, all departments purchasing over \$10 million had a salary cost per \$100 purchased of \$1.36 or less, whereas only three out of sixteen departments purchasing less than \$10 million a year had a comparable salary cost. The Department of Veterans Affairs, purchasing more than \$10 million and having a cost higher than \$1.36 per hundred dollars purchased, maintains seventeen buying offices across the country with an average order of only \$129. For the civil departments, the average salary cost was \$1.10 per \$100 purchased at Ottawa, and \$2.50 elsewhere. Departments that can buy relatively large quantities are best able to keep costs within reason—a factor of some significance in seeking the most economical regional purchasing arrangements.

EXCEPTIONS TO DEPARTMENTAL PURCHASING

The Department of Defence Production does substantially all the buying for the Department of National Defence, and its operations are reviewed in a separate section of this report. The Department of Public Works purchases office furniture and fixtures and the Department of Public Printing and Stationery fulfils stationery, printing and publishing requirements and purchases office equipment of various kinds for other departments.

There is an important difference between the methods used. The Department of Public Works distributes furniture and fixtures without charge and the cost is borne by a Vote of Public Works. Stationery and printing, on the other hand, is "bought" by individual departments from the Department of Public Printing and Stationery and the cost is charged to their Votes.

Special conditions apply to the acquisition by one department of goods that belong to another, which can be obtained either through the Crown Assets Disposal Corporation or by transfer, lease or loan.

The operation of the Crown Assets Disposal Corporation is discussed in the section of this report dealing with Materials Management. Here, the concern is the machinery provided by the *Surplus Crown Assets Act*. Any department may tender for materials offered for sale by the Corporation. There is no standard procedure for notifying surpluses, although attempts are made to advise departments known to require certain types of supplies. If a department's bid is high, it will receive the goods, but under some circumstances a low bidder will be advised and given an opportunity to meet the best competitive price.

Departments do not pay the Corporation directly for surplus assets purchased originally from public funds; invoices of the Corporation covering such materials are charged to the relevant departmental appropriations so as to ensure that no department secures more resources than Parliament intended.

The transfer or loan of materials or supplies from one department to another is of such potential importance that it is pertinent to quote an extract from the applicable section of the manual of the Comptroller of the Treasury:

TRANSFER, LEASE OR LOAN

Parliament has an interest in the ultimate disposition of property of any kind purchased from public funds to the end that it is used for the purpose for which the purchase money was provided, or is otherwise disposed of pursuant to parliamentary authority. The general statutory authority governing disposition (other than disposal of surpluses) is section 97 of the Financial Administration Act which reads:

"Subject to any other Act of Parliament, no transfer, lease or loan of property owned by Her Majesty in right of Canada shall be made to any person, except in accordance with regulations or on the direction of the Governor in Council".

There are also a number of other statutes which govern transfer or lease of stores and equipment. It should be noted however that any authority relating to the transfer of stores and equipment does not apply where they are surplus to the requirements of the department since all surpluses must be disposed of under the Surplus Crown Assets Act. Property is *prima facie* surplus to the requirement of a department if it has discontinued permanently the operation or activity which involved the use of the property or has substituted other property therefor, or if for any other reason it is in a position permanently to transfer the administration and control of any property to another department or to dispose of it in any other way. (Justice Ruling 167957, 25-2-54).

Where any duties or functions of the public service are transferred by the Governor in Council pursuant to the Public Service Rearrangement and Transfer of Duties Act, the Governor in Council, as proprietor, has the authority under the Act to order the transfer of any equipment and supplies (other than a "public work" within the meaning of the Public Works Act). (J.R. 169679, 31-5-54). No equipment is transferred unless the Order so states.

There is no general prohibition against the transfer or loan to another department on a replacement basis of equipment or supplies which are not immediately required. If, however, the quantity or value is substantial, the transaction should be authorized by the Executive.

Where government-owned equipment is leased to some other person, the lessee should be required to furnish insurance policies or bonds for such amounts as afford, in the opinion of the department concerned, reasonable protection to the Crown.

It was found that loans of equipment or materials may occasionally be made by one department to another, but that the procedure for transferring goods from one department to another is seldom used and there is no regular exchange of materials and supplies.

APPRAISAL OF CIVIL PURCHASING

The requirements of some departments are large enough to permit them to buy many items at the best possible price. Some items are used in sufficient quantity to make economic bulk buying possible, but not by any one department or branch, and, with the large number of separate buying offices, cannot be purchased at bulk prices. Effective mass buying depends on the degree of skill exercised by buyers, and purchasing offices buying in large volumes generally have the greatest skill in making purchases.

There appears to be no government policy, and consequently no uniformity of practice, with respect to accepting cash discounts offered by suppliers. Savings from this source might be substantial and the possibilities should be explored.

There is considerable variation in the prices paid by different departments for automotive vehicles. Bulk purchasing produces significant savings up to \$500 or \$600 per vehicle, but is seldom possible with the present organization of departmental purchasing.

Prices paid for fuel and lubricants have a wide range. The cost of oil in some departments is averaging as high as \$2.00 a gallon, but one department is buying at 47 cents to 58 cents a gallon in drums and 68 cents to 80 cents a gallon in quart cans under bulk contracts.

Historically, tire discounts have shown very wide variations, and substantial differences were found in prices paid by departments. Some endeavour to obtain maximum discounts within the range of their purchasing potential, while others seem to be unaware of the discounts that may be obtained by skillful purchasing. One government agency purchases tires at the service station that services its vehicles. A department purchases tires in quantity, under a blanket order for delivery f.o.b. various depots across Canada, on an "as and when" basis. A comparison of the respective prices paid indicates sizeable potential savings:

<i>Type of Tire</i>	<i>Agency X</i>	<i>Department Y</i>
	\$	\$
670 x 15—6 ply	21.56	12.37
670 x 15—4 ply	18.25	10.08
750 x 14—4 ply	18.25	11.53
710 x 15—6 ply	24.44	12.94

APPRAISAL OF REQUIREMENT DETERMINATION

It was found that merchandise procured by government departments is generally of good quality; exceptions usually stem from the acceptance of low tenders where specifications are not—and perhaps cannot be—set to ensure satisfactory quality. In such circumstances, however, corrective measures are usually taken on later orders by specifying a brand name or equivalent. It would appear that the government often pays a higher price than necessary for the quality obtained.

The large number of departments making purchases limits the effectiveness of the Canadian Government Specifications Board in standardizing merchan-

dise items. Moreover, not all departments choose to follow the common specifications that have been established. A certain amount of voluntary standardization exists. For example, the specification issued by the Post Office for shirts for mail carriers is identical with that issued by the Directorate of Interservice Development for use by the Royal Canadian Air Force. In general, however, no effective method of standardizing large groups of items was found to exist.

The Canadian Government Specifications Board and the Directorate of Interservice Development have a combined total of about 3,000 current specifications outstanding and other departments have an indeterminate number of their own. The total is negligible when it is observed that a single large Canadian mail order catalogue contains about 14,000 items with about 64,000 variations in colour and size. The conclusion cannot be avoided that, statistically at least, government specification-setting bodies are not accomplishing their purpose, although many of the specifications issued have proved exceptionally useful.

It was found that there was some duplication of specifications developed by different departments and, in some of these cases, the Canadian Government Specifications Board had not been asked to prepare a specification. Significant gaps exist in the provision of specifications for even relatively simple and regularly used items. Your Commissioners note in another report that no department has ever prepared a satisfactory guide describing the characteristics of the more commonly used office supplies and equipment, and that the Canadian Government Specifications Board has established standards for fewer than one hundred such items in twenty-seven years.

The apparent weakness in the performance of the Canadian Government Specifications Board is that neither the Board nor any other central body is charged with responsibility for screening the requests for specifications according to degree of importance. Currently, the Board has a backlog of 450 requests for specifications.

APPRAISAL OF DELIVERY INTERVALS

Lapse of time between initiation of a requisition and delivery of the goods to the required location is generally longer for government than industry. In most departments delays do not appear to be serious at headquarters but are more pronounced at district offices, particularly when requisitions must be routed through headquarters before purchase. Numerous cases were noted where, in attempts to anticipate requirements, orders were placed far in advance and for larger quantities than could ordinarily be justified.

In the judgment of many administrators, operation of the control functions of the Treasury Board tends to hamper efficient purchasing. A study of purchasing practices suggests that the procurement process is lengthened less by Treasury Board activity than by the combination of other factors mentioned in this report. By sampling some typical cases, it was found that the time required for preparing submissions to the Treasury Board was about two days, and that the average time consumed at the Treasury Board offices was seven working days. Since Treasury Board approval is required only for large expenditures, this delay is relatively small compared with the total time now taken to make purchases. The real problem is not delays in procurement but the added cost of inventory storage and handling occasioned by purchase of greater than normal quantities to provide against slow or late deliveries. This point is considered in a later section of this report.

APPRAISAL OF TENDERING PRACTICES

The practice of inviting written quotations for small items is carried to extremes. One Invitation to Tender sent to motor manufacturers covered a horn button, four windshield wiper blades, and three air cleaner elements for carburettors. The paperwork alone cost more than the articles at retail. Further, since the horn button was required for a particular vehicle, it could be supplied by one manufacturer only.

The fault rests not so much in government policy as in its application within departments. Because of the fragmentation of the buying process, there is a complete lack of uniformity in establishing practices. Complaints from suppliers are frequent and reveal bewilderment at the inconsistency of practices and the elaborate formalities observed by different departments. In one department, thirteen separate steps in the tendering process were noted for purchase contracts under \$1,000, while purchases over \$25,000 require thirty-eight steps.

It is the practice of some departments to hold the three lowest tenders, together with a ten per cent security deposit, until a contract is awarded. Where this is done, the three low tenderers, including necessarily two unsuccessful ones, sometimes have their deposits tied up for weeks or months while it is being decided which tender to accept. This practice sometimes results in reluctance or refusal by potential suppliers to tender.

APPRAISAL OF PURCHASING EXPENSE

Table 2 indicates the wide variation in relative salary costs for purchasing. The real cost is considerably more, for it would include the cost of office

space, furniture, equipment and supplies, and all other items of overhead expense. Salary costs have been used for purposes of comparison because many elements of overhead cost were not readily ascertainable.

In a medium-sized manufacturing industry, a purchasing department salary cost of 50 cents per \$100 purchased is considered reasonable. The weighted average salary cost in the departments in Table 2 is \$1.34. Some of this large differential may be unavoidable if demonstration of impartiality by government is regarded as imperative, but the greater part is due to the wide variety of practices, the range of sizes of purchasing operations, and the small segments into which government buying is divided by the organization of the purchasing function on a departmental basis.

APPRAISAL OF EXISTING CENTRAL PURCHASING AGENCIES

The departments that buy for other departments and agencies (Public Works and Public Printing and Stationery) operate with relative efficiency in purchasing.

Table 2 shows that the Department of Public Works has a salary cost of 89 cents per \$100 purchased. Assessment of the figure must appreciate that Public Works, to a much larger degree than some other departments, deals in standard items bought on a repetitive basis, but indicates that bulk buying centrally organized can contribute to lower purchasing costs.

Departments are, on the whole, satisfied with the supply of furniture and office fixtures, but several complained of long delays. One department observed that it got better service from the Department of Public Works on office desk requirements in Vancouver than in Ottawa. Two reasons for delays are:

- Furniture supplied is not charged to the receiving departments; the cost is borne by a Department of Public Works Vote and buying is influenced by the state of the Vote.
- When departments develop unanticipated needs not included in the estimates, delays are inevitable. In some instances there is lack of planning on the part of user departments but often requirements could not have been anticipated sufficiently far in advance to be included in the estimates of the Department of Public Works.

Table 2 shows that the Department of Public Printing and Stationery also has a salary cost per \$100 purchased which is considerably lower than the average for the government as a whole. Again, many departments expressed

themselves as satisfied with the service received in meeting printing and stationery requirements, although many were dissatisfied with the service provided in procuring and repairing specialized office equipment. A special study of the operations of the Department of Public Printing and Stationery was made by your Commissioners and the findings are contained in a separate report.

When government sources (for example, experimental farms or penitentiaries) are used as suppliers of goods for government, production is a secondary operation and is therefore likely to be less efficient than outside sources. Nevertheless, improvement can be made in communication with the user departments; for example, there is generally only the sketchiest knowledge of what the penitentiaries can produce or of the prices they will charge.

The efficiency with which these "supplying" departments produce the articles they sell to other departments is not considered here, but it is apparent that they should seek to improve deliveries as well as the quality of some products.

LACK OF ROUTINE TRANSFER METHODS

Failure to explore existing government inventories of materials and supplies before purchasing from outside sources is a serious defect of the present system. Large gaps exist in the application of the transfer mechanism under the *Surplus Crown Assets Act* because departments are not always aware of surpluses available, and others hesitate to declare items surplus if there is any possibility of future need. Sometimes as much as five years may elapse before a surplus declaration is made.

The procedure by which one department can transfer goods and supplies to another without declaring them surplus is so cumbersome that it is really inoperative. The result is that from time to time departments buy supplies that other departments possess and could well relinquish. At present, the relinquishing department is not given credit, nor is the acquiring department charged. Little incentive exists to dispose of surplus stocks. There is no legislation in Canada comparable with the *Economy Act* in the United States, which provides for the purchase of goods and services by one department from another and encourages government purchasing agents to exhaust every possibility of obtaining goods from internal sources before looking elsewhere.

CONCLUSIONS

Your Commissioners are of the opinion that civil purchasing by government can be improved in several important respects.

Significant improvement could be made in the determination of requirements. It is not suggested that there be written specifications for everything the government buys or is likely to buy. To the degree that specifications are developed, the purchasing process will be simplified, but, if carried to excess, any savings in purchasing cost would be more than offset by increases in the cost of maintaining the specifications system.

The fact that the National Research Council, which spends a total of \$8 million a year on consumable materials and supplies, does not use the specifications of the Canadian Government Specifications Board, for which it is responsible, reflects a belief that the cost in time and money of developing specifications is worth while only where a large number of items, with large total value, are purchased annually. Improvements could be achieved if the Canadian Government Specifications Board and other specification-setting bodies concentrated on items that imperatively require specifications. These include important purchases where the dollar amounts involved are large, or where the nature of the article to be bought (for example, chemicals of a certain minimum purity) cannot be adequately described without a detailed specification. Expense should not be incurred in setting specifications for items of secondary importance.

The setting of specifications is not so much a problem of developing a large number of specifications as of selecting those that are important, either from the standpoint of size or from the character of the article to be bought. Concentration is not being achieved at present because of the wide dispersal of the various buying and specifying departments and a lack of knowledge of the total value of various types of items being purchased.

A reorganization of the Government Specifications Board alone will not bring optimum results—the answer lies rather in the organization of the purchasing function for government as a whole.

It is interesting to note the experience of one department in consolidating its purchasing arrangements. The purchasing branch of the Department of Transport was, until recently, so organized that there was a purchasing representative to handle the requirements of each branch of the department. This resulted in duplication of work when two purchasing agents were buying identical goods for two different branches. The purchasing branch has now been reorganized on a "commodity" basis instead of on a "branch" basis. For example, one buyer is responsible for purchasing builders' hardware, regardless of which branch of the department is the user. The new form of organization is much more effective. A consolidation of purchasing practices between departments would be an extension of this principle.

Your Commissioners accordingly conclude that it is desirable to overcome

the fragmentation of the purchasing function so as to achieve more efficient procurement of equipment, material, supplies and services.

It is further concluded that standardization of various elements of the purchasing function would be beneficial, not only in the development and use of specifications, but in levels of authority, methods and procedures, including tendering, standardization of contracts, and development of statistical information to assist government in the economical conduct of procurement.

3

MATERIALS MANAGEMENT—CIVIL DEPARTMENTS AND AGENCIES

Any organization that purchases large quantities of materials has a specialized problem in managing them after delivery, particularly when there are many widespread users. In the civil departments and agencies, the management of materials, like purchasing, is generally the individual responsibility of each unit.

In view of the vast quantities of materials, their extraordinarily wide geographic dispersal, and the large number of organizational units by which they will be used, it is not surprising that materials management in the government often presents substantial problems.

Responsibility for the management of materials is assigned to departments and agencies by Section 57 of the *Financial Administration Act*:

Every department shall maintain adequate records of stores and the appropriate Minister or such other authority as the Governor in Council may direct may make rules and give directions governing the acquisition, receipt, custody, issue and control of such stores.

Notwithstanding this enactment, some extremely diverse methods of materials management are followed.

DESCRIPTION OF CIVIL MATERIALS MANAGEMENT

Some idea of the complexity of the materials management problem in government may be gained from the large number of warehouses and locations in which the government stores consumable inventory of various types. Your Commissioners' inquiries revealed that, aside from the Armed Forces, the government had 249 warehouse locations and 340 sub-stores across the country (*see* Tables 3 and 3A).

Table 3—PRINCIPAL WAREHOUSE LOCATIONS OF MAJOR DEPARTMENTS AND AGENCIES

		Agriculture	Atomic Energy	Canadian Arsenals	Canadian Broadcasting	Central Mortgage & Housing	Citizenship & Immigration	Crown Assets	Defence Production	Dominion Bureau of Statistics	Eldorado Aviation	Eldorado Mining & Refining	External Affairs	Finance—Comptroller Treasury	Fisheries	Forestry
1	St. John's, Nfld.....															1
2	Gander, Nfld.....															
3	Charlottetown, P.E.I.....															
4	Summerside, P.E.I.....															
5	Halifax, N.S.....								1							1
6	Sydney, N.S.....															
7	Amherst, N.S.....	1														
8	Dartmouth, N.S.....															
9	Port Hastings, N.S.....															
10	Gagetown, N.B.....															
11	Saint John, N.B.....															1
12	Fredericton, N.B.....															
13	Moncton, N.B.....															
14	Dorchester, N.B.....															
15	Valleyfield, P.Q.....					1										
16	Quebec.....						3									
17	Montreal, P.Q.....							2								
18	St. Paul L'Ermite, P.Q.....							1				1				
19	Beauharnois, P.Q.....															
20	St. Lambert, P.Q.....															
21	Carillon, P.Q.....															
22	Chambly, P.Q.....															

Table 3—PRINCIPAL WAREHOUSE LOCATIONS OF MAJOR DEPARTMENTS AND AGENCIES—Continued

		Agriculture	Atomic Energy	Canadian Arsenals	Canadian Broadcasting	Central Mortgage & Housing	Citizenship & Immigration	Crown Assets	Defence Production	Dominion Bureau of Statistics	Eldorado Aviation	Eldorado Mining & Refining	External Affairs	Finance—Comptroller Treasury	Fisheries	Forestry
23	St. Anne, P.Q.....															
24	Sorel, P.Q.....															
25	Hull, P.Q.....	1														
26	Rimouski, P.Q.....															
27	Chicoutimi, P.Q.....															
28	Lindsay, Ont.....			1												
29	Ottawa, Ont.....	1*	2*		1	1	1			1			1	1	1	
30	London, Ont.....	1														
31	Belleville, Ont.....	1														
32	Toronto, Ont.....					1										
33	Port Hope, Ont.....												1			
34	Prescott, Ont.....															
35	Port Colbourne, Ont.....															
36	Dunville, Ont.....															
37	Cornwall, Ont.....															
38	Port Weller, Ont.....															
39	Scarborough, Ont.....			1												
40	Sault Ste. Marie, Ont.....															
41	Thorold, Ont.....															
42	Iroquois, Ont.....															
43	Cobourg, Ont.....															
44	North Bay, Ont.....															

*See Table 3A for Sub Stores

Table 3—PRINCIPAL WAREHOUSE LOCATIONS OF MAJOR DEPARTMENTS AND AGENCIES—Continued

		Agriculture	Atomic Energy	Canadian Arsenals	Canadian Broadcasting	Central Mortgage & Housing	Citizenship & Immigration	Crown Assets	Defence Production	Dominion Bureau of Statistics	Eldorado Aviation	Eldorado Mining & Refining	External Affairs	Finance—Comptroller Treasury	Fisheries	Forestry
45	Chalk River, Ont.		1*													
46	Hamilton, Ont.															
47	Parry Sound, Ont.															
48	Peterborough, Ont.															
49	Kingston, Ont.															
50	Joyceville, Ont.															
51	Collins Bay, Ont.															
52	Long Branch, Ont.					1										
53	Winnipeg, Man.						1									
54	Churchill, Man.															
55	Shilo, Man.															
56	Stony Mountain, Man.															
57	Regina, Sask.		1													
58	Moose Jaw, Sask.		1													
59	Swift Current, Sask.		1													
60	Prince Albert, Sask.															
61	Saskatoon, Sask.															
62	Beaver Lodge, Sask.									1						
63	Calgary, Alta.															
64	Edmonton, Alta.										1					
65	Vauxhall, Alta.		1													
66	Namao, Alta.															

Table 3—PRINCIPAL WAREHOUSE LOCATIONS OF MAJOR DEPARTMENTS AND AGENCIES—Concluded

Because inventory methods vary widely, departments and agencies could not compile the information necessary to give your Commissioners a complete statistical summary of the stocks held or of their rates of usage. A sample was accordingly developed from the records of 20 departments and agencies operating 120 warehouse locations (excluding sub-stores) throughout the country. These departments employ 1,116 people for materials handling, at a salary cost of \$4,284,000 a year. Average inventories of consumable items are worth about \$21.9 million, and annual issues from stock approximately \$42 million. Total warehouse space is over 1.5 million square feet.

Table 3A—NUMBERS AND LOCATIONS OF SUB-STORES

	<i>No. of Sub-Stores</i>	<i>Location</i>
Agriculture.....	4	Ottawa
Atomic Energy.....	1	Deep River
	10	Chalk River
Penitentiaries.....	20	Dorchester
	30	Montreal
	27	Prince Albert
	20	New Westminster
	13	William Head
	19	Collins Bay
	19	Joyceville
	24	Kingston
	22	Stony Mountain
	1	Ottawa
	12	Ottawa
	6	Ottawa (2 shacks) " 2 Gatineau Park
National Film Board.....	2	Montreal
	1	Ottawa
	1	New York
National Harbours Board.....	6	Halifax
National Research Council.....	15	Ottawa
Queen's Printer.....	4	Hull
	11	Ottawa
	7	Other
	2	Ottawa
Trade and Commerce.....	47	Various
Transport.....	16	"
Northern Affairs.....		
	340	

Departments that keep adequate records of inventories are more likely to be efficient than those that operate in the dark. Thus the sample probably

reflects conditions more efficient than the average—some departments stated frankly that they do not maintain sufficient information to make a proper tabulation of inventories and issues for their own use.

Table 4 illustrates the distribution of inventories across the country, but does not present the complete picture, for the sample includes only 120 locations out of a total, including sub-stores, of 589. It does, however, include the major storage depots of the selected departments.

Table 4—DISTRIBUTION OF GOVERNMENT CIVIL STORAGE BY REGIONS*
(Sample of 20 departments and agencies)

Region	Number of Depart- mental Locations	Stock Averages				Stores Number	Staff Salaries	Salaries per \$100 of Issues
		Inventory Main- tained	Annual Issues	Annual Stock Turn	(Times)			
Atlantic Provinces.....	22	2,090	3,402	1.6	115	411	12.08	
Quebec (ex. Hull).....	19	3,776	7,192	1.9	166	635	8.83	
Eastern Ontario (plus Hull).....	26	9,631	19,753	2.1	481	1,826	9.24	
Western Ontario.....	13	2,322	5,145	2.2	125	455	8.84	
Western Canada.....	26	2,672	4,338†	1.6	134	514	11.85	
Pacific.....	8	1,148	2,073	1.8	75	366	17.66	
Northwest.....	6†	280	573†	2.0	20	77	13.44	
TOTAL.....	120	21,919	42,476	1.9	1,116	4,284	10.09	

* This is the number of known locations in the sample, and is not the complete total. The figures do not cover precisely the same periods.

† Not including some issues by Department of Public Works, the value of which is unknown.

Much of the material and supplies bought by several departments goes into use without passing through a government warehouse, and without being received into and issued out of stores. For example, in one large department annual issues from stores amounted to only slightly over thirty per cent of the consumable materials purchased by the department, the remainder having gone directly into use.

In general, departments warehouse only those items not needed immediately. Sometimes materials are bought in anticipation of requirements because there are economies in placing large orders, but the prime purpose of storage is to ensure availability rather than to achieve economy.

RECEIPT AND ACCEPTANCE

Verification of quantities is usually a simple matter, carried out by count, weight or measurement, by a clerk at the place of delivery. Establishment of quality is more difficult and methods depend on the complexity of the verification process. Most quality verification or inspection is by the user department, even when procedures are relatively complex, but some is done centrally—for example, building materials by the Department of Public Works.

Although most inspection is done by user departments, a number of different inspection facilities may be employed for specialized requirements. Testing facilities are available for a wide range of products. For example, one department reported using the following extra-departmental facilities for quality verification:

- Department of Mines and Technical Surveys (laboratories and technical staff).
- Department of National Health and Welfare (Food and Drug Laboratories).
- Department of National Defence (Inspection Services).
- Department of Transport (Telecommunications Branch and Marine Division).
- Department of Public Works (testing laboratories).
- Department of Agriculture (Science Services).
- Department of Forestry (Forest Products Laboratories).
- Provincial governments (testing laboratories).
- Canadian Standards Association (electrical testing laboratories, Toronto).

STORAGE AND ISSUE

Procedures vary widely in storing and issuing materials and supplies. Some departments have detailed systems for pricing goods received into stores, inventories, and issues out of stores, and the value of inventory on hand can be readily ascertained. Others have little or no control over stores. In one department, branch requirements for items falling within a general classification are purchased as and when required, while no records are maintained for items used immediately. Another department has branches that make fairly large purchases but has neither set aside stores space and facilities nor

assigned staff to stores work on a full-time basis; a clerk or assistant technician is given the part-time duty of managing stores.

There is much variation in the length of time elapsing between preparation of requisitions and issue of material. In most departments this ranged from two or three days to two or three weeks, but in some the average elapsed time was as long as thirty days.

Methods of pricing vary widely, several departments using average prices but most the latest prices. In one department, the unit prices of receipts are recorded, but not the monetary value of receipts and issues. In another department, withdrawals are not priced but the annual inventory is priced, at latest cost; still another uses average prices for inventory valuation.

Some variation was also noted in departmental practice for issuing stock. Most departments attempt to withdraw and use the oldest stock first, but in others the stock at the bottom of the heap may be years old.

The extent to which departments in the same location store identical goods in different warehouses could not be ascertained because no standard classification system is in use. A test sample indicates, however, that the same general *kinds* of inventory are frequently carried by more than one department at the same location.

Table 4 shows that the departments included in the sample have a stock turn of 1.9 times a year—that is to say they stock an average of 6.3 months' requirements. However, at some locations stock is equal to only two months' issue, while at others it is over three years'. Not all materials are used at once, and materials are often not all used within thirty days after issue from stores. If this time lag were taken into account, the average age of inventory on hand would be somewhat increased. The average stock turn shown is favourably influenced by certain short-life or perishable items in the inventory. For example, motion-picture film is replenished on a month to month basis because of deterioration, and the inclusion of this kind of material in the sample helps to improve the average.

Although departments buy many specialized items, the great majority of purchases are common commercial articles in everyday use and supply. The average of 6.3 months' stock carried by departments therefore appears to be much too high.

DISTRIBUTION

A large part of materials management in government or industry may be called "distribution management", which involves the storing of goods for future use and their most economical shipment to the place where they will be used. Costs of distribution involve not only the cost of transport but also

the cost of storage and handling. This aspect of materials management is intimately associated with transportation policies and procedures, and for that reason is reviewed in the report on *Transportation*.

DEPARTMENTAL WAREHOUSING ORGANIZATION

Many departments use central warehouses supplemented by district sub-stores. Much of the material is delivered initially to the central warehouse, where it is unpacked and shelved and then either issued over the counter or repacked for shipment to subsidiary warehouses.

Departments do not ordinarily store office furniture and fixtures, which are owned and controlled by the Department of Public Works and issued to departments only as required. Any surplus items of office furniture are repossessed by the Department of Public Works upon notification.

A different method is followed with stationery, printing, publications and office supplies. Departments buy their requirements from the Department of Public Printing and Stationery, and many have large central stocks for reissue to branch offices in various locations. Table 5 analyzes the stocks at headquarters warehouses of ten sample departments.

Table 5—DEPARTMENTAL STORAGE OF STATIONERY, PUBLICATIONS AND OFFICE SUPPLIES IN THE OTTAWA AREA†

(Sample of 10 departments)

Department	Stock Averages			Stores Staff		Salaries per \$100 of Issues
	Inventory Maintained (\$000)	Annual Issues (\$000)	Annual Stock Turn (Times)	Number	Annual Salaries (\$000)	
Citizenship and Immigration.....	255	257	1.0	9	34	13.23
Defence Production.....	38	180	4.7	3	11	6.11
External Affairs.....	200	200	1.0	10	37	18.50
Labour.....	61	70	1.1	9	31	44.29
Unemployment Insurance Commission (Hull).....	527	912	1.7	20	66	7.24
Northern Affairs and National Resources.....	65	49	.8	4	15	30.61
National Revenue.....	362	804	2.2	20*	74*	9.20
Trade and Commerce.....	46	42	.9	7	26	61.90
Bureau of Statistics.....	37	240	6.5	5	16	6.66
Transport.....	121	502	4.2	11	42	8.33
	1,712	3,258	1.9	98	352	10.80

† These were the latest available figures reported on a questionnaire but they were not for identical periods.

* Estimated.

A certain portion of these inventories consists of materials peculiar to a single department, such as departmental publications. The balance is represented by items which are commonly used by all or many departments. The size of inventory is related to the methods by which stationery and printing are distributed to district offices.

The handling of stationery, printing and office supplies illustrates that the duplication and waste result from the present organizational pattern for materials management. In some departments, nearly all packages received from the Department of Public Printing and Stationery are shelved and repacked for shipping to branches. In others, direct shipments are made to field points, with up to ninety per cent being handled in this way in some cases.

APPRAISAL OF CIVIL MATERIALS MANAGEMENT

Varying methods employed result in widely differing degrees of efficiency. Procedures in some departments are quite informal but others have lengthy directives and manuals. Some minimum-maximum inventory controls were found but elsewhere a year's stock may be purchased and warehoused *en bloc*.

The existing organization pattern also results in a serious duplication, not only of inventories, but of warehousing and distribution facilities. As an illustration, nine departments have goods in store at Fort Smith, Northwest Territories. Less startling, but more representative, is the situation revealed by Table 6, showing the number of warehouses and the size of stores-handling

Table 6—DISTRIBUTION OF GOVERNMENT CIVIL STORAGE AT MAJOR LOCATIONS

(Sample of 20 departments and agencies)

	<i>Depart- mental Stores</i>	<i>Stores Personnel</i>	<i>Annual Salaries</i>	<i>Inventories</i>	<i>Annual Issues</i>
			(\$000)	(\$000)	(\$000)
Saint John.....	4	24	89	248	692
Halifax.....	4	25	89	288	562
Quebec.....	4	26	93	437	1,336
Montreal.....	7	102	399	2,923	4,799
Ottawa-Hull.....	18	415	1,558	7,600	15,583
Toronto.....	3	73	263	1,544	3,536
London.....	3	29	106	247	1,136
Winnipeg.....	3	31	108	425	797
Edmonton.....	4	14	57	633	342
Vancouver.....	5	53	190	772	1,552
	57	792	2,952	15,117	30,335

staff in ten major locations for twenty departments and agencies. In the Ottawa-Hull area, different departments were found holding stores in the same building separated by a wire fence, each with its own personnel in charge.

A wide variation was noted in the accommodation used by various departments. Storage areas are well planned and adequate in a few cases, but in many others facilities do not lend themselves to efficient and economic handling. In one large warehouse, for example, structural limitations precludes the use of fork-lift trucks and pallets. In another instance, departmental stores are on three separate floors of a building. In some departments, dispersal of stores to a large number of small storage areas precludes the use of modern, efficient equipment, and excessive handling expenses cannot be avoided.

Many new warehouses are well designed and constructed, but others recently erected or now being planned are not designed to permit the most efficient handling of goods. Three of the nine departments with separate storage facilities in Fort Smith provide individual branches with storage facilities. Three departments are constructing or have just completed large permanent warehouses in this location, although required supplies are stocked by other departments. But no authority exists for one department to requisition goods from another, except for the rarely used procedure outlined earlier in this report. The practice in remote locations is therefore to borrow supplies informally and make returns to the lending department in due course.

A further example was noted in Halifax, where an agency of a department moved into a new building in the summer of 1961 while the parent department was constructing a new two storey building with basement for itself one hundred feet away from the other. In the absence of special considerations, a single storey warehouse, large enough to house both the department and the agency, would have been more efficient.

Those responsible for maintaining adequate stocks in warehouses have a natural tendency to over-estimate requirements in order to avoid "run-outs". In industry, this tendency is counter-balanced by arranging inventory and ordering patterns so as to minimize costs and immobilized capital. Several different techniques have been developed to indicate appropriate levels at which stock should be carried. In government, where accounting and administrative practices do not give adequate guidance for cost control and the economic use of capital and the profit motive is absent, the tendency to over-build stocks is not inhibited and there has been little incentive to adopt industrial practices aimed at keeping stock at proper levels.

In any circumstances, the multiplication of facilities for what is really a single service results in substantial excess inventory investments and dupli-

tion of warehouse personnel. These are aggravated by the lack of machinery by which one department might requisition or "buy" stock from another. Furthermore, as a department gets no credit for the value of supplies declared surplus, there is no incentive to be concerned with disposing of unneeded stocks.

CONCLUSIONS—CIVIL MATERIALS MANAGEMENT

Your Commissioners are of the opinion that major changes in materials management are necessary. It is estimated that the total cost of carrying inventory in a warehouse for a year varies from fifteen per cent to forty per cent of the value, depending upon relative bulk, keeping qualities, price, weight, and other factors. Thus savings within reach are large, not only within the warehousing function itself, but also within the distribution function where improvements in warehousing would result in improvements in traffic management.

There is a need for a gradual consolidation of materials management throughout the government. Efficient co-ordination will permit bulk handling and the use of stores records, stores accounting, and economic ordering techniques which contribute to more effective materials management. The development in recent years of electronic equipment for both the communication and computation of data opens new possibilities of economy in both materials management and purchasing.

4

PROCUREMENT AND MATERIALS MANAGEMENT FOR DEFENCE

The Department of Defence Production is responsible for all procurement for the Armed Forces. Its predecessor, the Department of Munitions and Supply, was created during World War II to further a number of objectives: first, to eliminate inter-Service competition for materiel and industrial capacity; second, to establish an independent procurement agency that could reconcile the needs of the Services with those of the civil sector of the economy in a period of scarcity; and, third, to consolidate in a single agency the expertise needed for the development of a strong industrial base for the defence programme.

Defence concepts have changed radically. There is now less emphasis on the maintenance of a large industrial mobilization base to be activated on the outbreak of war. While the concepts have changed, the statutory basis of the Department has not, although new functions arising from developing problems of defence have been added.

Under the Department of *Defence Production Act*, the Minister has: exclusive authority to buy or otherwise acquire defence supplies and construct defence projects required by the Department of National Defence, except

- (a) defence projects to be constructed by persons in the employ of Her Majesty, and
- (b) such defence supplies or defence projects as the Minister of National Defence or any other Minister designated by the Governor in Council may procure or construct at the request of the Minister.

In addition, the Minister may act for any associated government in the same way as for the Department of National Defence. The Minister has the

supervision and direction, among other agencies, of Canadian Arsenals Limited, Defence Construction (1951) Limited and Canadian Commercial Corporation.

THE NATURE OF DEFENCE PROCUREMENT

By no means all procurement for the Armed Forces is of a specialized character, for they require a wide range of goods indistinguishable from those purchased by civil departments. The Services use motor vehicles of standard types, and fuel and components for them; a wide variety of clothing and of textile products generally; meat, dairy products and food of all kinds. Table 7, which summarizes defence procurement contracts by categories, demonstrates that total annual purchases outside the specialized weapons category amount to more than \$100 million per annum.

Table 7—TOTAL CONTRACTS PLACED FOR DEPARTMENT OF NATIONAL DEFENCE AND RELATED EXPENDITURES

Net value of total Canadian government defence contracts placed by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

<i>Programme</i>	<i>1959</i>	<i>1960</i>	<i>1961</i>
	(\$000)	(\$000)	(\$000)
Aircraft.....	218,225	363,210	113,194
Armament.....	19,049	19,703	11,311
Electronics and communication equipment.....	82,300	133,617	122,593
Ships.....	25,989	84,657	26,585
Tank-automotive.....	7,893	6,947	10,981
Fuels and lubricants.....	57,768	50,496	48,972
Clothing and equipment.....	18,808	6,284	11,897
Construction.....	67,141	51,571	90,671
Other.....	94,383	87,800	92,569
TOTAL.....	591,556	804,286	528,773

Nevertheless, the Department of Defence Production is concerned less with commonplace items than with aircraft, armament, electronics and communication equipment, ships and tanks, and components for all of these. During the past decade, as weapons systems have become more sophisticated and complex, military procurement has become progressively more specialized and involved, and the relationships between military personnel and suppliers of highly specialized equipment more and more intimate. Highly complex

weapons, rapidly changing technology, and an accelerated rate of obsolescence lengthen lead times between original conception and ultimate production. Design changes have become numerous and continuous, while the number of units required has declined. A parallel development has been the enhanced role in the procurement process of research and development, undertaken partly by the Services and the Defence Research Board, partly by private defence contractors, and sometimes jointly. This adds to the complexity of defence procurement and requires close and intricate working relationships among the Services, the Department of Defence Production, and suppliers. Thus, an important part of the defence procurement job cannot be reduced to standard, routine procurement processes.

Defence procurement by the Government of Canada cannot be properly assessed without an appreciation of special Canadian problems, which differ from those of the United States and, although in lesser degree, from those of the United Kingdom. These differences are accentuated rather than diminished by the high degree of integration between United States and Canadian Forces for the defence of North America.

During the build-up of the N.A.T.O. defence organization, Canada made important and relatively independent contributions to international defence production. Although increasingly moving toward United States standards in the equipping of its Forces, Canada achieved economic production runs for much of its military requirements by adding some production, as mutual aid, for European members of the alliance. This situation no longer holds. Weapons and weapons systems have steadily and rapidly become more complex and more sophisticated. Costs have mounted astronomically and, at the same time, discouragingly high rates of obsolescence have reduced the volume requirements for each new weapon or weapons system. The Canadian economy can support production facilities for the major weapons upon which its Forces are increasingly dependent only under production-sharing agreements whereby it sells to its allies some part of their requirements. In response to this challenge, Canada has integrated both its military "hardware" requirements and their production with those of the United States. In the result, military procurement in its major aspects is now more generally an involved economic and inter-governmental process than a simple national operation with requirements established by the Services.

Another significant factor is the impact of defence procurement on the international balance of payments. With defence expenditures at a high level, Canada is necessarily concerned about the share of the defence dollar spent abroad, particularly in the United States. This has formed the base of agreements between Canada and the United States, dating from the Hyde Park

Declaration of April 20, 1941. As the possibility of a wholly independent Canadian programme of research, development, and weapons production has progressively diminished, the balance-of-payments impact of defence procurement has become more critical. It is no longer a simple matter of establishing the dimensions of the needs of Canada's own Armed Forces and then procuring in the most expeditious way possible; in today's situation, defence procurement can be afforded only when integrated with defence production undertaken jointly with allies.

Furthermore, defence research, development, and production now constitute collectively one of the major stimuli to technological progress, and thereby to the competitive strength and growth potential of a nation's industrial economy. If defence research, development, and production on the North American continent should be wholly or largely a prerogative of the United States, Canada would inevitably fall behind in creating and retaining those skills in frontier fields, such as electronics, nuclear physics and space technology, that may have major impact on our future economic strength.

Those responsible for defence procurement must therefore be more than skilled purchasing agents. The procurement effort must be guided by an adequate appreciation of the present and future potentials of the economy in fields of research, development, and technology which can, by proper stimulation and support, underpin the country's economic strength and potential economic growth. This may call for the placing of research and development contracts with industry without any assurance that acceptable end-products may emerge, but with the certainty that, unless the Canadian economy possesses the scope and means for such work, Canada will be unable to hold skilled scientists and engineers she can ill afford to lose. Thus there is an additional incentive, over and above that provided by balance-of-payments considerations, for fostering and promoting Canada's role in production-sharing agreements with its allies, and for ensuring a strenuous sales effort on behalf of Canadian-developed and Canadian-produced military equipment.

These considerations must therefore be consciously taken into account in the development and continuing execution of Canada's defence procurement policies. They are not, as in the United States, factors automatically taken care of in the normal and natural approach to defence procurement. The United States, alone among the western allies, has an economy large and strong enough to produce the whole range of defence needs. Any country comparable to Canada knows in advance that its volume of requirements can support economic levels of production for only a few of today's weapons and weapons systems. Even for these, its research, development and production efforts may need to be part of an integrated production-sharing

programme. Canada has, therefore, a problem of selection and, in a sense, of economic planning which the United States does not have. A defence procurement mechanism appropriate for Canada will be acceptable only if it meets a general need. Defence procurement in the United States has been a responsibility of the Defence Department and, until recently, largely a responsibility of the individual Services, but this does not imply that Canada should or can afford to follow a similar pattern. Even in the United States, there is now a significant trend toward centralizing the defence procurement activities of the various Services and, particularly in the research and development fields, under a greater degree of civilian direction and control.

The United Kingdom may be regarded as representing a mid-way point between Canada and the United States. The problem of choice arises because, even in the United Kingdom, the economy cannot support the full range of defence production but can afford to choose more broadly than in Canada. It is significant, therefore, that defence procurement in the United Kingdom is not a prerogative either of the Services or of a centralized, civilian-manned purchasing agency. Each of the three Services undertakes its own procurement in certain defined fields (and in some cases undertakes procurement for the other Services) but the Ministry of Aviation—a civil department—has exclusive procurement authority for aircraft, sophisticated electronic equipment, and the growing area of missiles and space technology. The net effect is that much of the defence procurement effort is centralized, with almost the whole of defence technology development and sophisticated weapons procurement in the hands of a civil purchasing department.

DEFENCE PROCUREMENT

The Department of Defence Production is thus compelled to go beyond normal purchasing routines and functions; it must take into account the Canadian economy. It must implement government policy by wise selection of the areas in which procurement should be directed to foster Canadian productive facilities, by far-seeing stimulation of research and development effort in Canada, and by active promotion and support for production-sharing programmes and resale of military equipment to allied governments. It is, then, something more than a service agency for its principal client, the Department of National Defence. Even as a purchasing agency, it has other clients, being responsible for purchasing defence equipment in Canada for other governments.

As of December 31, 1961, the Department of Defence Production had 1,538 employees, of whom 169 were located at 14 district purchasing offices in Canada and 78 with the N.A.T.O. delegation in Paris and in offices in the

Table 8—NET VALUE OF CONTRACTS PLACED BY DEPARTMENT OF DEFENCE PRODUCTION AND DEFENCE CONSTRUCTION (1951) LIMITED

	1960	1961
	(\$ millions)	
On behalf of the Department of National Defence:		
Placed in Canada.....	719.0	502.6
Placed in the United States.....	70.4	16.7
Placed in the United Kingdom.....	11.7	5.0
Placed elsewhere.....	3.2	4.5
	804.3	528.8
On behalf of foreign governments:		
United States.....	75.4	97.5
Britain.....	*	2.1
Others.....	*	1.0
	75.4	100.6
Contracts to assist Canadian defence industries.....	4.5	16.0
D.D.P. Revolving Fund contracts†.....	1.3	40.6
On behalf of other Canadian government departments and agencies.....	25.7*	15.4
	911.2	701.4

* 1960 purchase contracts on behalf of foreign governments (other than the United States) are included with the figure for purchase on behalf of other Canadian government departments and agencies.

†Material and equipment bought for subsequent use in defence production contracts or for resale.

United States and Europe. The offices located outside Canada are principally concerned with the Canada-United States production-sharing programme, the N.A.T.O. research development and production programme, and the fostering of sales of Canadian-produced military equipment abroad. Offices are located at eight points in the United States: Washington, D.C.; Wright-Patterson Air Force Base, Ohio; New York City; Rome, N.Y.; Bedford, Mass.; Philadelphia; Detroit; and Los Angeles; and at four points in Europe: London, Paris, Koblenz, and Prestwick. The Department also has representation at N.A.T.O. Paris headquarters and in the Canadian embassies at Paris and Bonn.

During the fiscal year ended May 31, 1960, net purchase orders placed on behalf of the Department of National Defence totalled \$863.7 million. Of this amount, contracts totalling \$802 million were placed in Ottawa, and the balance represented orders placed by the fourteen district offices. The district offices purchase from regional suppliers mainly the fresh food, stores and

services, required for immediate use by military establishments in their areas. The Department delegates to the Armed Forces authority for local purchase of emergency and small items, which amount annually to approximately \$13 million.

Role of the Department of National Defence

The Armed Forces use many commonly available commodities including food, clothing, furniture, office equipment and supplies, motor vehicles and some electronic equipment. Other requirements are highly specialized and involve technically complex components: missiles, fighter aircraft, and electronic communication and control systems cannot be ordered off the shelf. Their acquisition involves processes of analysis and evaluation of needs, time-consuming research and development phases, frequent design changes during both development and production, and close consultation with our allies.

In any industrial or commercial organization, there is always risk of disagreement and friction between the purchasing department and the user departments for which it acts. The opportunities for irritation and for dissatisfaction are greater in government, because the two departments involved respond to different ministers. It is not surprising to find, at some levels and in some sectors, discordant relationships between personnel of the departments and dissatisfaction in the Services with the way in which the Department of Defence Production fulfils its role. In some cases, this extends to a questioning of the role itself, and to the conclusion that purchasing for the Armed Forces should be a responsibility of the Services, or at least of a specialized group within the Department of National Defence.

Small irritations tend to exacerbate the situation. The Services have a natural desire to obtain the equipment or material that appears exactly designed to meet their needs. This often gives rise to specifications drawn in such terms as to exclude standard, commercially-produced items, even when they could serve the purpose adequately. Even minor departures from a commercially available product may result in a cost disproportionately high in relation to advantages gained. For instance, a manufacturer of electric light bulbs was producing until recently a bulb to the special specifications of one of the Services, although the company's standard item would have met the need equally well and more cheaply.

One role of a purchasing department is to know what is available and advise users how to tailor specifications economically and effectively. The Department of Defence Production sometimes attempts to provide this kind of service, with limited success. The Department of National Defence has a Directorate of Interservice Development, which is responsible for establishing

common specifications for the three Services. Some useful work has been done, but it is evident that the process has been scarcely more than started.

Design changes are another source of irritation and, when they occur, cause trouble in the Departments and to the supplier. Some changes are inevitable, particularly in the development and production of complex weapons systems with long lead times and a high obsolescence factor. Formal design change procedures have been established by the two departments, but do not satisfy either the departments or suppliers. Changes under consideration aim to reduce the average time required for a design change from forty-five days to not more than two weeks.

In principle, since a design change is really an amendment to a purchase contract, responsibility for giving effect to the change should be borne by the purchasing authority. Accordingly, the Department of Defence Production generally takes responsibility but, while sound in principle, this arrangement does not work well in practice because:

- A large proportion of the changes are small—eighty-five per cent are estimated to involve less than \$5,000—and do not demand the same processing as costly modifications.
- The Department of Defence Production seldom, if ever, refuses to approve a design change request; therefore its approval is little more than a formality.
- Due to paperwork and consumption of time, cases frequently occur where the design authority and the contractor give effect to the change in advance of approval.

While the Services are, not unreasonably, dissatisfied with what appears to be a cumbersome and unnecessary procedure, the Department of Defence Production is statutorily unable to relinquish responsibility for approving any design change that necessitates a contract revision.

As the user department, the Department of National Defence is responsible for verifying the quantity and quality of goods received to ensure that they meet stated requirements. This procedure is overdone, and ninety-eight per cent of the inspection work is performed at the source of production. A general condition of defence purchase contracts is that the approval stamp of an authorized inspector appear not only on the finished product but, wherever practicable, on all component parts and materials as well. The inspector must have access to the work at all times and to plants and premises where any part of the work is being carried on; he may inspect and make tests of the work, of parts, of materials, and of working processes as he sees fit; he is the sole judge of the meaning or intention of the specifications; and

delivery is not deemed to have been made until after acceptance by him of the work, part, or finished product.

Furthermore, there is significant duplication in inspection activities between the Department's Inspection Services and of those of the R.C.A.F., as well as some duplication of inspection resources and facilities between each of these and the Department of Public Works. The very high cost of inspection of defence purchases is reflected in the fact that the Department of National Defence (Inspection Services) and the R.C.A.F. employ 1,500 people who are engaged full-time on inspection. As the range of required skills is wide, and the volume of work in any area highly fluctuating, there is under-utilization of manpower and the overall cost is out of all reason.

Department of Defence Production Procedures

To assess the effectiveness of general purchasing procedures in the Department, a number of individual purchase contracts were scrutinized at each stage from the original definition of need to final delivery. The time required to process four typical cases through the Department of National Defence, the Department of Defence Production, and the supplier is shown in Charts 1, 2, 3 and 4. Chart 5 depicts in detail the sequence of steps required. A number of conclusions emerge.

An important part of the time consumed is absorbed within the Department of National Defence itself, in the development and definition of specifications and in the development of design changes. This is inevitable, particularly for specialized requirements, but it seems likely, on the basis of observation, that time is often wasted in unnecessary elaboration of specifications.

The documentation required to support every buying decision may be justified but undoubtedly slows down the purchasing operation and makes the administrative overhead higher than in a private undertaking. It is occasionally carried to the extreme of calling for tenders where it is known that the equipment can be obtained from only one supplier. An example of this is shown in Chart 3, which depicts the time sequence for procurement of two voltage regulator testers. The contract demand noted that only one supplier existed for this equipment, but competitive tenders were called for anyway, thus introducing the relatively modest delay of two weeks in the total purchase and delivery schedule.

The procedures of the Department of Defence Production are designed to ensure that a reasonable and defensible procurement job is done, but cumbersome and time-consuming procedures result. The possibility of outside

review is regarded as a more continuing and fearsome hazard than any dissatisfaction by another department with the speed of service. Nevertheless, the Department does, within the requirements of procedures established for its own protection and the protection of the public interest, attempt to keep delays to a minimum. On occasion, it has demonstrated that it can act quickly when the need is great. For instance, it was observed that when an important training device was lost in 1961, a replacement was obtained in six days.

There is an inclination on the part of both departments to cite Treasury Board intervention in the contract approval process as a significant source of delay. The interest of the Treasury Board in the nature of the requirements as well as in the proposed expenditure level for important purchases has increased, and in some cases approval of contracts has been withheld for considerable periods. Usually, in such cases, the decision involved was one of real significance for the government as a whole. Treasury Board approvals generally take about two weeks of working time, including two days for the Department of Defence Production preparation of submissions. As approvals are required only for major outlays, the time lapse is not unreasonable.

Your Commissioners have come to the following conclusions:

- The procurement of defence supplies, even of the simplest kind, often takes longer than is necessary.
- There are too many routine steps in the procurement process and no flexibility where procurement problems require less complex procedures.
- Excessive concern is directed to ensuring that acts and decisions can be defended should they ever be publicly scrutinized.
- Since neither department has control of the entire process, tendency is for procedures to develop and persist without adequate justification.
- There is little evidence that departmental boundaries contribute in any major way to delay, and there is even less justification to assume that a specialized procurement group within the Department of National Defence would achieve a measurable improvement—particularly if the same functions are to be discharged.

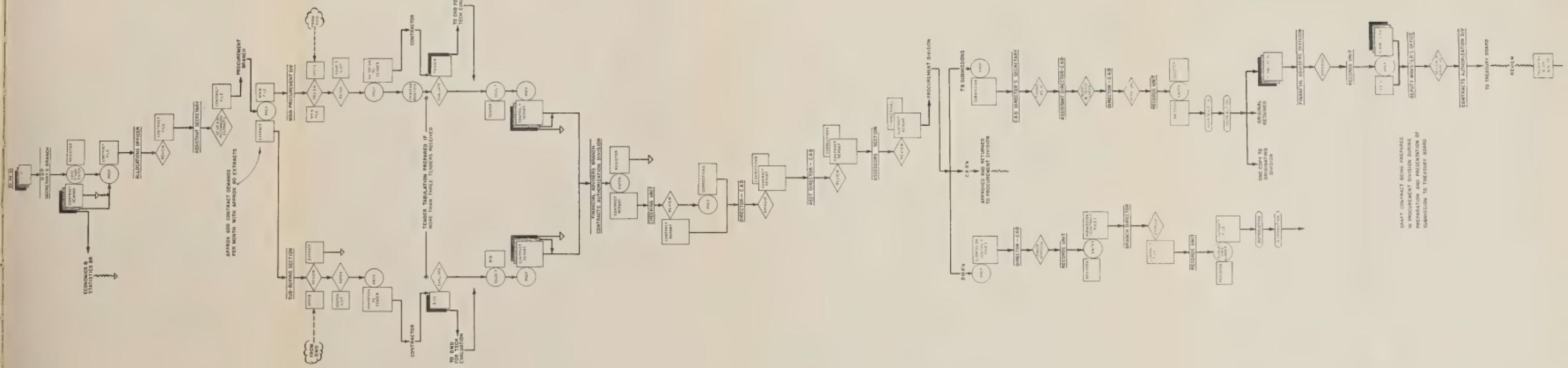
Relations with Suppliers

Efficient purchasing for government, as for private undertakings, turns not only on proper decisions about requirements, but also on the proper selection of suppliers and on safeguards to ensure that price is consistent with the value of the goods and services and the conditions of supply. In government pur-

Charts 1, 2, 3 and 4; TIME SEQUENCE IN PROCUREMENT OF EQUIPMENT

EQUIPMENT	DEPT.	1959						1960					
		JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
<i>Chart 1</i> Loaders	DND												
	DDP												
	SUPPLIER												
	TOTAL												
<i>Chart 2</i> Storage batteries	DND	[solid black bar]											
	DDP												
	SUPPLIER												
	TOTAL												
<i>Chart 3</i> Voltage regulator testers	DND												
	DDP												
	SUPPLIER												
	TOTAL												
<i>Chart 4</i> Waste receptacles	DND												
	DDP												
	SUPPLIER												
	TOTAL												

1961					1962					CALENDAR TIME IN DAYS									
AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	
																			331
																			87
																			134
																			552
																			198
																			110
																			56
																			364
																			43
																			13
																			119
																			175
																			46
																			19
																			34
																			99



chasing, tenders are most commonly relied upon as the guarantee that the public does not pay an excessive price. The Department of Defence Production maintains source-of-supply records, and buying units are given lists for use in inviting tenders. Requirements are not advertised, but firms listed as potential suppliers are invited to tender and be put on the appropriate list; a firm need only provide the Department with some evidence of its capability. Departmental buyers are not rigidly bound by the source lists, and may add or delete on the basis of their buying experience and knowledge of the suppliers' capabilities.

Contracts fall into five classes: (1) competitive tender; (2) target price; (3) ceiling price, (4) cost plus fixed fee; (5) cost plus a percentage of cost. The aim is to have as many contracts as possible in the first two classes and few in the other three. It is a standard condition of contracts that Her Majesty be granted a non-exclusive, irrevocable, royalty-free licence on inventions, methods and processes developed by the supplier in the course of carrying out the work. Where the contract is on a cost-reimbursement basis, the supplier is directed to take advantage of all trade discounts, rebates, refundable taxes and similar items which may be available to him, and his costs are closely scrutinized by the Department before final payment. Suppliers are invariably required to use Canadian labour and materials to the fullest extent possible. Preference is frequently given not only to Canadian suppliers but especially to Canadian suppliers who offer higher proportions of Canadian content.

APPRAISAL OF DEPARTMENT OF DEFENCE PRODUCTION

No standard exists for the determination of the efficiency of the Department, but it can be said that there is a thorough and detailed system and that controls are meticulously observed. The salary cost incurred in handling contracts was 7 cents per \$1 purchased for contracts negotiated by Ottawa headquarters, and 1 cent per \$1 purchased by the district offices. No useful comparison can be made in this regard, either with other departments or with industry. The highly specialized character of much of the equipment purchased tends to raise purchasing costs; the large dollar volume tends to reduce them.

The Department of Defence Production has always had a role going beyond procurement in the conventional sense. It has a responsibility for looking to the general capabilities of the Canadian economy in defence production and to the contribution that defence production may make to the general strength and vitality of the economy as a whole. Thus it is the arm of government concerned with stimulating sales of Canadian-produced

military equipment and supplies to Canada's N.A.T.O. allies. During the past four years, Canada's decision to co-ordinate the development and production of weapons systems with the United States, and to abandon the development of certain major systems of her own, has led to specific programmes with a number of Canadian defence suppliers. As an adjunct to the defence production-sharing programme, the Department of Defence Production administers production-sharing assistance funds. Under a Vote for the establishment of production capacity, funds have been made available for use in the advanced technology of aeronautical, electronic, and weapons production. These funds are designed to offset the substantial advantage enjoyed by United States firms which have been able to write off pre-production and tooling costs under earlier contracts with the United States government. The funds are used to defray a portion of the Canadian firms' pre-production and tooling costs, thereby permitting them to compete on more even terms for production contracts with the United States Department of Defence.

Another Vote is aimed at sustaining and enhancing technological capability in the Canadian defence industry. Whereas the programme described immediately above is temporary, this second programme is viewed as a long-term defence development project. It is aimed at maintaining scientific and technical ability in the defence industry at a level that will enable it to participate effectively in future joint production programmes with the United States. Substantially larger funds have been made available under this programme for administration by the Department of Defence Production.

More recently still, the Defence Industrial Research Programme was established in mid-1961 to promote and strengthen the research capability of the Canadian defence industry, so as to increase Canada's ability to participate in the development and supply of defence equipment to meet North American and N.A.T.O. requirements. As the agent primarily responsible for defence research, the Defence Research Board has been given the chief responsibility for this programme, acting in consultation with the Departments of Defence Production and Finance. It has established the Directorate of Industrial Research within the Chief Scientist's Branch to discharge this responsibility. Contracts negotiated by the Department of Defence Production are on a non-profit basis and require financial participation by the industrial firm—preferably to a level of at least fifty per cent.

The Department of Defence Production obviously plays a very important role which goes far beyond normal purchasing activities and has great significance for the current and future strength of the economy. This is true despite the fact that the total value of allied purchases and United States production-sharing contracts placed in Canada, together with special expendi-

tures in support of Canadian industrial capability, represents but a modest sum in relation to similar expenditures elsewhere. Because these expenditures are concentrated in areas where research and technological skills have great significance for the future, their relatively small dimensions are no adequate gauge of their importance. It is vital, therefore, that the Department's responsibility should be well handled.

These activities must be closely linked to the job of defence procurement and demand, among other things, a detailed knowledge of the defence capacities, present and potential, of Canadian industry. Defence procurement decisions should be taken in the light of this knowledge and in harmony with production-sharing agreements with allies, with the object of ensuring that defence production in Canada contributes, as it should, to the current and future strength of the economy. Defence procurement and this broader role should therefore be handled in close conjunction.

It is evident that the Department of Defence Production devotes a great deal of energy to this broad responsibility, but less evident that it is equipped with the knowledge and skills for an undertaking of these dimensions. The enthusiasm and imagination of its officers, tempered by a pragmatic approach founded on Canadian capabilities, have succeeded in obtaining an adequate opportunity for Canadian suppliers to produce under the defence production-sharing programme and to obtain orders from European allies. There is less evidence of serious studies of the Canadian economy upon which confident judgments could be made about the significance of particular segments in relation to future strength and growth. Equally, little evidence has been found that this need is met elsewhere in the government. The degree of success thus far attained has been dependent, to an uncomfortable degree, on the common sense and *ad hoc* judgments of practical men, rather than on a fundamental analysis of the needs of the Canadian economy and of the ways in which defence production, including Canada's share in allied requirements, could most effectively contribute.

MATERIALS MANAGEMENT IN THE DEFENCE SECTOR

Once delivered, defence equipment, materials and supplies become the responsibility of the Service for which they have been purchased. The Services, therefore, are individually responsible for warehousing and distribution, either direct from the supplier or from their own depots and warehouses to the point of use. The Services' accounts, as currently kept, do not record the value of stocks held, but the level is estimated at between \$500 and \$750 million—probably closer to the higher figure. In addition to substantial

volumes of equipment and supplies distributed to N.A.T.O. allies under the Mutual Aid Programme, equipment costing more than \$1,000 million has been declared surplus and handed over to the Crown Assets Disposal Corporation since the end of World War II.

The inventories of the Services—clothing, motor vehicle equipment and parts, and a wide range of other material and equipment—are stored in major depot points and regional Army ordnance depots. The management of these huge stocks, their storage, their size, and the extent to which the financial cost of deterioration and obsolescence in storage are controlled, have to be taken into calculation in measuring the cost of defence. Approximately 40,000 people are involved in the materials management function of the Armed Forces, at a total annual salary cost of about \$175 million. For every three members of the Armed Forces, one person works in a materials management function, of whom 68% are civilians. Details are shown in Table 9. Elsewhere, your Commissioners report on the relationship between Service supply systems and their traffic management arrangements. This report summarizes the results of a study undertaken to determine whether purchasing and inventory control of defence equipment, materials and supplies are well designed to hold purchasing and storage costs to a desirable minimum.

The general conclusions are both disturbing and encouraging. A check of 40,054 items (specialized to the needs of the Armed Services) disclosed that, for 73 per cent, stocks on hand exceed five years' requirements and that, assuming no further purchases, 29% of present inventories would still be on hand at the end of twenty-five years. The Royal Canadian Navy, for example, has eighty-five years' supply of a particular size of boot, more than nine years' supply of small kitbags, and enough wool and cotton union suits of one size to last more than a thousand years. The Army inventory of technical stores contains forty-two years' supply of radio oscillators, eighty-three years' supply of No. 4 flashlights, one hundred and ninety-seven years' supply of men's plain black cotton overalls, size 1, and fifty-one years' supply of motor transport separate clutch oil seal rings. The Royal Canadian Air Force has in store eighty-one years' requirements of a particular wool sock, twelve years' requirements of pneumatic tires, and two hundred and seventy years' requirements of lamp G bulbs. To be fair, in some cases remaining stocks of World War II materials and equipment are the cause.

On the other hand, one per cent of the more than 40,000 checked items accounted for 50% of the annual usage, in dollar value, while 10% of the inventory items accounted for 86% of the annual usage. Obviously, by concentrating attention on the relatively small number of the total inventory lines for which they are responsible, the Services can make major improve-

ments in the effectiveness of their materials management. Hitherto, the tendency has been to give equal attention to each type of inventory item, but this is obviously not good business.

Table 9—MATERIALS MANAGEMENT PERSONNEL—CANADIAN ARMED FORCES

	<i>RCN</i>	<i>Cdn. Army</i>	<i>RCAF</i>	<i>Total</i>
Number of personnel in the Services at March 31, 1961	20,655	48,051	51,349	120,055
Number of DND personnel working in material management functions at Dec. 31, 1961*				
Service.....	928	6,684	4,383	11,995
Civilian.....	9,701	11,900	3,519	25,120
	10,629	18,584	7,902	37,115**
Percentage of civilian personnel engaged on material management functions.....	91%	64%	45%	68%
Ratio of total number of personnel in the Services to the number of personnel in the material management function.....	1.9	2.6	6.5	3.2

* Includes personnel concerned with purchasing, control, traffic, warehousing, storekeeping, receiving, inspection, audit, repair, disposal, salvage, packaging, expediting and materials handling aspects of integrated material management functions.

** To this figure should be added 1,317 D.N.D. personnel under the Assistant Deputy Minister—Requirements and Inspection. The estimated cost of these personnel is approximately \$169 million per annum or 11% of the annual Defence budget. In addition, a major portion of the 1,538 employees of the Department of Defence Production and the 100 employees of Crown Assets Disposal Corporation should be added to this total.

The general purport of existing Service inventory rules is:

- maintain a safety stock of three months' requirements, and
- place orders annually for twelve months' requirements.

Little attempt is made to balance the incremental costs of placing an order against the incremental costs of holding unneeded inventory. To illustrate, on the 3,895 inventory items (out of the total sample of 40,054 items studied) for which orders were placed during the year under review, \$540,000 could have been saved by economic ordering. More orders would have been placed, at an additional cost of about \$20,000 for procurement, but average inventories would have been held at lower levels, thus reducing holding costs by \$560,000. The net potential saving, from this source alone, amounted to 5%

of the total value of the actual purchases. Moreover, as orders were placed during the year for only 3,895 items out of the sample total of 40,054, 90 per cent of the items in the total sample were presumably either obsolete or had been overbought in previous periods.

A simulation study on a larger part of the sample of 40,054 items showed a likelihood of annual savings of more than 10% of present inventory values without any change in existing stock safety rules. It indicated that the average levels of inventories for the more than 13,000 items studied could be reduced by 85%. The adoption of more appropriate stock safety rules would increase potential savings still further. Equally important in the long run would be the accompanying savings due to reduced requirements for warehouse space. The techniques used do not permit extrapolation of the results with any confidence to the \$500 to \$750 million worth of stocks held in total by the Services, but they do suggest that savings of the first magnitude could be achieved.

Your Commissioners would not wish to leave false impressions. There are many explanations of this state of affairs which do not reflect adversely on the Service personnel responsible for materials management. Concepts of military necessity play some part in the approach to control of inventory levels. The Services, too, have in stock today large quantities of equipment and supplies which reflect past policies and past situations. Surplus stocks of some items date back to World War II, the Korean expedition, and the rapid build-up for N.A.T.O. during the early 1950's. Until defence plans became based on "the forces in being" concept, there was reason to have larger supplies of many items in readiness than is now appropriate. Some part of the surplus stocks reflect, therefore, inadequate disposal procedures. Other contributing factors could be mentioned. As a general conclusion, however, your Commissioners feel that, while there is some awareness in the Forces of the kinds of procedure that could markedly improve inventory control and costs, far too little has so far been done to secure the possible benefits.

Improvement in the management of defence equipment material and supplies is only the first step toward realizing the maximum benefits obtainable. Interservice co-operation in the storing and distribution of equipment, materials and supplies is the obvious long-range solution. Even where similar items are not identical between the Services—for example, clothing and some types of motor vehicles—there could be major advantages in centralizing or otherwise rationalizing the storage of similar types of supplies for all three Services. In many cases where there are identical requirements—for example, spare parts for motor vehicles and much electronic equipment—the scope for savings in warehouse space and staff, transportation charges and related expenditures should be even greater.

The objectives to be achieved in the management of so vast an enterprise as the orderly purchasing, transporting, and storing of the materials, equipment and supply requirements of Canada's Armed Forces are such that progress should be sought by stages. It may therefore be much more profitable, as well as wiser, to concentrate initially on techniques for reducing warehousing, transportation, and stock-loss costs of each Service.

5

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the foregoing appraisal of the purchasing and materials management activities of the federal government, your Commissioners have reached the following conclusions:

1. The purchasing function in the civil departments and agencies is so dispersed and fragmented that it is too often left in the hands of individuals with inadequate knowledge and skills for the task. There are exceptions, but this generalization is applicable to the function as a whole. Duplication of personnel and effort is everywhere apparent because of the multiplicity of purchasing offices, purchasing personnel, and of storage facilities and warehousing personnel at many points across the country. While only some departments have regional purchasing organizations, others should have reduced the cost and complexity of their procedures by similar decentralization.

Individual departments and agencies have specialized requirements, but the great weight of procurement comprises types of goods commonly needed by many departments, including the Armed Forces. This, in itself, suggests the advantages to be derived from establishing a central purchasing organization to provide skilled and informed purchasing services for all departments and agencies. The Department of Defence Production is already organized and operating in this capacity for the Armed Forces. In doing so, it is responsible for procurement orders each year amounting to several times the combined purchase volume of the civilian departments and agencies; the civilian-

type items and equipment purchased for the Armed Forces alone approximate in value the annual requirements of all civil departments and agencies.

2. Purchasing processes and procedures are often unnecessarily complicated and time-consuming, and consequently expensive. Wherever government spends money, there is a need for safeguards against improper influence in the choice of supplier or in the payment of an excessive price.

This is the reason for the Treasury Board review of major contracts, even though that body has already participated in the Estimates review which makes funds available for the purpose. However, protection would be adequate if this second check were limited to large contracts. A centralized purchasing agency, in whose approaches and procedures the Treasury Board had confidence, could be given greater latitude than the present multiplicity of purchasing departments.

Within the Department of Defence Production and throughout the public service, there is a too meticulous adherence to buying by formal tender. When need is urgent, the public interest can be adequately protected by an able purchasing agent. There are also circumstances where calling for tenders is farcical—for example, where there is only one possible supplier or when the amount involved is petty.

A central purchasing agency could make much greater use of bulk purchase contracts, thereby simplifying and reducing the costs of ordering procedures. Annual tenders for a wide variety of common-use items required in large quantities could be obtained and supply contracts established with several suppliers strategically located across the country, or with a single supplier whose own distribution facilities would meet the same need. User departments and agencies could then, either centrally or through their regional offices, place direct orders against these contracts as their needs arose, thereby eliminating a great deal of requisitioning from the central purchasing agency, avoiding frequent calling of tenders for small quantities, and reducing the size of inventories.

3. Inadequate use of standard specifications and, in many cases, over-specific definition of requirements tend to make government procurement more expensive than it need be. A centralized purchasing agency, armed with proper skills and having good working relationships with client departments, should be able to achieve improvements. Purchasing agents who know their fields and keep up with developments in the use of materials and in the designs of products can advise user departments on the products and materials that will meet requirements most effectively and economically. In addition, a central purchasing organization can aid in establishing common standards for mate-

rials and equipment required by several departments and agencies. A purchasing agency should not preempt the right of user departments and agencies to order and obtain products and materials to exact specifications, provided that they are prepared to pay the price involved and, when required, justify the additional cost to the Treasury Board.

4. Warehousing and inventory management of materials, equipment, and supplies are, in many cases, less efficient and more costly than they should be. To a large extent, this is because of the duplication and fragmentation resulting from operation by individual departments and agencies to meet their own needs alone. A further important cause of the relative inefficiency of many government warehouse and inventory handling operations appears to be inadequate attention to the improved techniques that are spreading rapidly in industry. These defects could be remedied appreciably if warehousing and materials management were made the responsibility of a single service agency. Common-use articles should be regionally stocked across Canada for civil departments and agencies. The Department of National Defence should have access to these stocks and be encouraged to make maximum use of them so as to reduce Service inventories. Correspondingly, there should be less need for departmental warehouses in the regions, many of which could be merged with those operated by the common procurement agency. A net saving of space should result.

5. Disposal of surplus equipment, materials and supplies by government departments and agencies through the medium of Crown Assets Disposal Corporation is less effective and less economical than it should be. The major weaknesses are inadequate incentive to departments to declare surpluses and the ineffective procedures governing transfers. Incentives should be reinforced by procedures which are not unduly cumbersome and time-consuming, and by financial arrangements which permit the disposing department to use the funds recouped, or to be credited, in such a way as to improve its record of performance. Similarly, other departments which could make use of government surpluses should be given a financial inducement to do so rather than to purchase outside.

6. The first step in the transfer of purchasing and warehousing responsibility to a central service department should be to transfer the regional purchasing functions of departments and agencies to the existing fourteen district purchasing offices of the Department of Defence Production. Equally appropriate for early transfer would be the responsibility for purchasing and supplying office furniture, office machinery, printing and stationery.

7. In a few special cases, acquisition of specialized items could not be appropriately undertaken by a common purchasing agency: works of art for the National Gallery or an accession to the collection of the National Museum are obvious examples. And, even for the items in general and common use, for practical reasons it seems prudent for the central purchasing agency (to be known as the Department of Purchasing and Supply) to assume purchasing responsibilities, department by department, at an appropriate pace. The Treasury Board, with an overriding interest in the whole situation, should supervise the transfer and, where necessary, issue instructions.

8. The proposed Department of Purchasing and Supply should be a service organization. It should not be permitted to control decisions of user departments about the kinds of equipment, materials and supplies needed to meet requirements. On the other hand, as a specialized and competent purchasing agency, it should be in a position to advise. As a service organization, the Department of Purchasing and Supply should not absorb purchase or transportation costs of any item supplied to user departments. Each department should pay for what it receives out if its own Votes and be required to justify them in the usual way through the Estimates process as essential elements of its programmes.

- We therefore recommend that:*
- 1 A central purchasing agency be established to serve all departments and agencies (civilian and military) of the federal government, other than the commercially oriented Crown corporations.
 - 2 To this end, the existing Department of Defence Production be renamed the Department of Purchasing and Supply, and its responsibility be extended to include procurement for civilian departments and agencies.
 - 3 The Department of Purchasing and Supply be given responsibility to develop, in conjunction with user departments and agencies, standard specifications for all appropriate items and to assume the functions of the Canadian Government Specifications Board, including representa-

tion on the Directorate of Interservice Development of the Department of National Defence.

- 4 The Department of Purchasing and Supply develop warehousing, stocking and materials-handling services across Canada for all departments, other than the Department of National Defence.
- 5 The Department of National Defence, in consort with the Department of Defence Production, initiate studies of economic ordering patterns, minimum safe inventory levels, joint stocking and disposal of obsolete or surplus stocks, for each of the three Services, with the object of reducing warehousing, transportation, and other costs of materials management.
- 6 The financing of the procurement and warehousing activities of the Department of Purchasing and Supply be placed on a revolving fund basis.
- 7 Crown Assets Disposal Corporation be operated as a division of the proposed Department of Purchasing and Supply, and its personnel and methods of operation be integrated as closely as possible with other functions of the Department.
- 8 A vigorous programme to dispose of surplus inventory be undertaken and, to permit a freer flow of interdepartmental business, current procedures for the declaration of surplus materials and supplies be amended.

7 TRANSPORTATION

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 7: TRANSPORTATION

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	149
1 INTRODUCTION	151
2 FREIGHT, EXPRESS AND CARTAGE	154
Direct Purchases of Services	154
Existing Arrangements	155
Commercial Traffic Management	155
Traffic Management in the Federal Government	157
Transportation and Supply	160
Review of Charges	162
3 TRAVEL AND REMOVAL	164
Travel	164
Travel Services	164
Rates	165
Control and Review of Travel Expense Claims	166
Movement of Household Effects	166
4 THE OPERATION OF VEHICLES	168
Control of Vehicle Operations	169
Purchase and Replacement	169
The Use of Vehicles	170
Ownership or Hire	173
Official Use of Employees' Vehicles	173
Maintenance and Repair	174
Repairs in Penal Institutions	176
Records and Cost Control	177
Re-Definition of Functions	178

	<i>Page</i>
5 THE OPERATION OF WATERCRAFT	180
Distribution and Functions	181
Control and Utilization	183
Utilization	183
Ownership or Charter	185
Re-allocation of Functions	186
Operating Methods and Standards	188
Management	188
Manning	189
Husbanding	190
Repairs and Refits	191
Accounting and Cost Control	193
Consolidation of Watercraft Management	194
6 THE OPERATION OF AIRCRAFT	197
Eldorado Aviation Limited	198
Department of Transport	198
Functions and Usage	198
Control and Management	200
Royal Canadian Mounted Police	201
The Charter of Aircraft	202
Air Transport Command—R.C.A.F.	203
Functions and Usage	203
The Basic Problem	206

ACKNOWLEDGEMENTS

A detailed investigation of transportation services was undertaken by a Project Group under the direction of Charles LaFerle, *The Robert Simpson Company Limited*, Toronto. His co-ordinator and assistant was Bruce C. Willis, c.A., *Payne-Ross Limited*, Montreal. A number of project officers collaborated on the inquiry, and your Commissioners wish to acknowledge the assistance received from those mentioned below:

W. J. Fisher, *Canadian Shipowners Association*, Ottawa.

H. O. Gooding, *Imperial Oil Limited*, Calgary.

Melville J. Kelly, formerly with *O'Keefe Brewing Company Limited*, Toronto.

W. J. Rae, *Lever Brothers Limited*, Toronto.

A number of submissions bearing on this topic were received from individuals and organizations: these have been carefully considered and are noted in our final report.

Your Commissioners, in acknowledging the assistance and advice received from the above-named persons, dissociate them from any of the findings and conclusions contained in this report; for these, your Commissioners assume full responsibility.

1

INTRODUCTION

For the Government of Canada, as for the public it serves, transportation is a major element in the cost of living—and of doing business. Every activity of government contributes to this cost: the administration of public affairs from coast to coast and from the southern border to the Arctic, the representation of Canadian interests throughout the world, the movement of large military forces throughout Canada and abroad, and the acquisition and distribution of supplies for the civil and military services.

Transportation costs incurred in providing for the direct needs of the public service are not fully revealed in the accounts. For example, shipping costs frequently are included in the purchase price of goods, and costs incurred in the operation of transportation services ignore, in most cases, the capital investment. However, it may be safely assumed that in 1961:

- More than \$17 million was paid to commercial carriers for transporting public employees (this includes the Armed Forces) from one place to another.
- Over \$5 million was paid directly to public employees for use of their automobiles in performing public functions.
- An estimated \$12 million was spent for the movement of the household effects of public servants transferred from one post to another.
- Almost \$12 million was paid to the commercial carriers for freight, express and cartage, as such, and

- Payments to suppliers included an element for shipping costs estimated at between \$20 million and \$25 million.
- About \$4 million was spent transporting government departments' mail by land, sea and air.
- The bill for chartering aircraft exceeded \$5 million, and almost \$3 million was paid for the charter of ships.
- The operation and maintenance of vehicles by the civil departments and agencies cost over \$6 million.
- The cost of operating and maintaining vehicles for the general administrative needs of the Armed Forces approximated \$4 million.
- Ships of the civil departments and agencies cost over \$30 million to operate and maintain.
- Aircraft of the civil departments cost almost \$4 million to operate and maintain, and the Air Transport Command of the Royal Canadian Air Force more than \$17 million exclusive of personnel costs.

What would normally be the provision for depreciation cannot be calculated with any degree of precision. It is known, however, that the investment at cost in watercraft alone is approximately \$150 million; that the capital cost of civilian vehicles (cars, trucks, etc.) is about \$20 million with another \$12-\$15 million invested in the administrative vehicles of the Armed Services (not directly supporting their operational forces); that the aircraft of civil departments and agencies originally cost more than \$8 million—and those of Air Transport Command many times that amount. Annual depreciation charges exceed \$25 million if applied on a conservative life expectancy of twenty years for ships, ten for aircraft and five for vehicles.

Thus, the total identifiable burden borne by the federal government for the purchase of transportation services and for the operation and maintenance of its own vehicles, ships and aircraft (excluding the ships and aircraft of the Royal Canadian Navy, the training and fighting aircraft and the vessels of the Royal Canadian Air Force and the aircraft and operational vehicles of the Army) is estimated at \$160 million annually. If other relevant costs were included, the yearly total would approach \$200 million.

As in the other studies of this Commission, the practices of public undertakings of a commercial type were excluded from this inquiry into the management of transportation services. Also excluded were the very extensive transportation services rendered by federal departments and agencies to the

general public. The magnitude of these public undertakings, which have played so prominent a part in the creation, the growth and the prosperity of the country, can be expressed only in billions of dollars—greatly overshadowing the cost of meeting the administrative needs of the federal government. It is perhaps for this reason that the latter needs and the methods by which they are met have received little attention in the past, despite their mounting cost.

The activities of the government in meeting its transportation needs fall into two broad categories: its purchase of services and its operation of facilities. Each category, in turn, involves a number of separate elements with distinctive problems: the movement of supplies, of people and of their household effects in the first case; the operation of vehicles, of aircraft and of vessels in the second. But the two categories cannot be studied in isolation from each other; they meet and merge in the shadowland of choice between purchase of services and operation of facilities, between charter and ownership. Such, then, are the factors that have dictated the plan of this inquiry and the arrangement of this report.

2

FREIGHT, EXPRESS AND CARTAGE

During the fiscal year 1960-61, the cost of moving the supplies and equipment of the federal government by commercial carriers is estimated to have been approximately \$35 million. This sum comprises two elements. First, freight, express and cartage services purchased directly by departments and agencies are recorded in the published accounts for the year in the amount of \$11.6 million; this does not include expenditures by a wide range of Crown corporations. The other—and larger—element consists of shipping costs paid by suppliers and included in the price charged to government for its goods. Such costs are not generally segregated in the invoices received from suppliers, except under contracts involving the reimbursement of actual costs, and cannot be identified in the accounts of the government. However, on the basis of industrial experience, it is estimated that this freight component of government purchases is \$20-\$25 million annually.

DIRECT PURCHASES OF SERVICES

Of the \$11.6 million paid directly to commercial carriers for freight, express and cartage in 1960-61, over \$6.5 million was spent by the Department of National Defence and the balance by the civil departments. Among the latter, only the Department of Transport recorded payments in excess of one million dollars: its bill for the year was \$1.4 million. The Department of Northern Affairs and National Resources spent almost \$900,000; and all others, with two exceptions, spent less than \$250,000. Thus, for most departments and agencies, payments under this heading were a relatively small item of expense.

Existing Arrangements

This pattern of expenditures takes on significance in light of the fact that responsibility for the purchase of these transportation services rests wholly with the individual departments. Because of their relatively limited volume of shipments, most departments do not employ specialists in freight and traffic management. Frequently the work is assigned to junior clerical staff, and throughout the departments there is little knowledge of modern traffic management methods. Personnel are competent in particular aspects of the work, but little effort is made to develop technical skills and apply the best commercial practices.

No attempt has been made within the public service to compile data on the volume and categories of shipments, shipping and receiving points, the routes and modes of transportation chosen, and the related costs. The general assumption appears to be that whatever is administratively simple is best; few, if any, departments and agencies analyze their freight traffic to determine whether savings might result through the adoption of more sophisticated methods.

The one exception is the Department of National Defence. Because of the volume of its shipments, this Department has felt a greater need for systematic traffic management. In addition, because of the vital importance of reliable and orderly transportation in wartime, the Armed Forces devote serious attention to the movement of men and materiel. As a result, the Department of National Defence has made substantial progress in controlling freight costs. A civilian traffic expert is employed to help in developing good traffic management procedures and under the auspices of a Tri-Service Movements Committee, a manual of movements has been developed to standardize and improve procedures for the purchase of transportation services. While these steps indicate that the Department of National Defence has displayed more initiative and skill than other departments, traffic management, nevertheless, has lagged behind commercial practice, largely (and perhaps necessarily) because military needs have outweighed cost considerations and because the existing civilian expertise in the Department of National Defence is used in an essentially advisory capacity.

Commercial Traffic Management

Recent developments in commercial traffic management reflect the virtual disappearance of the monopoly once enjoyed by railroads and the new opportunities for shippers to exercise greater control over transportation costs by exploiting the growing competition among rail, road, air and, more recently,

pipeline carriers. To secure the benefits of this new competitive situation, commercial shippers have evolved new techniques of traffic management, and in recent years have made major improvements.

Current traffic management practice starts with a thorough analysis of the main factors influencing costs: on the one hand, classes of commodity, volumes, traffic patterns and other factors relevant to the needs of the shipper; on the other, the services offered by various modes of transportation and the charges associated with each. Knowledge of these factors is a prerequisite to traffic management, the goal of which is to ensure the use of the most economical means of carriage and to eliminate, where possible, the use of premium or high-cost transportation.

In the development of traffic management, a number of techniques have emerged. Routing of shipments is controlled, both by the evolution of principles and through the preparation of specific routing guides appropriate to the kinds, volumes and pattern of traffic. Procedures for shipment are standardized. And the greatest economies are obtained through the negotiation of rates and the consolidation of traffic.

The recent rapid development of competing methods of transportation has created a bargaining position for shippers of which they make increasing use. To illustrate:—although the general level of freight rates increased by 138 per cent between 1948 and 1961, the revenues of the railways, for each ton-mile of traffic, increased by only 55 per cent. The difference reflects the need of the railways to adapt to meet the competition of other modes, and the ability of shippers to negotiate special rates for their traffic. In return for favourable rates, shippers have offered an agreed percentage of their traffic, and the assurance that shipments would be of such a size or character as to reduce the carrier's handling costs.

Volume of shipments is of two-fold importance in traffic management. First, the ability to assure a carrier a substantial continuing volume of traffic permits the negotiation of favourable agreed charges. In addition, the tariffs of all common carriers provide substantial reductions for volume in individual shipments; carload and truckload shipments are the lowest cost transportation available for other than bulk commodities. Even short of full carloads or truckloads, preferred rates are available for shipments in large lot quantities. And the key to volume is consolidation of traffic.

Commercial organizations have recognized the value of consolidation to the point even of setting aside their habitual rivalries to pool their traffic. In Toronto and Montreal, for example, strongly competitive retail organizations band together to consolidate shipments from suppliers to their stores. The basic procedure for such consolidation is simple: all shipments originating

within the defined area, whether from suppliers or warehouse, and destined for defined points or beyond, are delivered to a central shipping location; the originator indicates when the goods are required at destination and the limits of time and cost within which shipping arrangements may be varied. A central traffic organization selects the routing which best meets the need and makes up carloads or truckloads for the various destinations or, where less than carload shipments must be made, selects the method of shipment best suited to the particular tonnage. In addition, the central traffic organization keeps participating shippers informed of alternative modes and routes and the relevant costs so that the latter can time shipments to secure the most economic rates.

Even without the benefit of negotiated special rates, the savings to be gained from consolidation of shipments and proper routing control are readily demonstrable. Not only are less-than-carload and less-than-truckload shipments charged higher rates than carload or truckload lots, they are also subject to minimum charges, generally the rate for one hundred pounds. Thus, the shipping cost of a forty-pound item includes, in effect, a charge for sixty pounds of "air", representing wasted transportation dollars. These minimum freight charges also reinforce the tendency for small shipments to be made by premium methods, such as express. With very little consolidation of traffic, coupled with better control of routing, the added cost of these premium services can be eliminated.

Similar benefits can be found at another level—in the consolidation of express shipments. For example, express shipments of less than five pounds from Toronto to Vancouver incur a minimum charge of \$1.16. Thus, a one-pound parcel is charged at the equivalent of \$116 a hundred-weight while an actual hundred-weight costs only \$15.95.

Knowledge of these rate differentials, and of the techniques for using the various modes to the greatest advantage, is the stock-in-trade of contemporary traffic management.

Traffic Management in the Federal Government

Little traffic management on the commercial pattern exists in the departments of government. Commercial practice requires the compilation and analysis of traffic statistics: this essential is lacking in the public service. In consequence, departments have little way of knowing how efficiently their shipments are being handled, or what opportunities there may be for savings and improvements in service. Even in the Department of National Defence, where sizeable

traffic organizations exist, little is done to compile traffic data in a form which would permit useful analyses to be made.

The government may lack the freedom of action enjoyed by private shippers in the negotiation of rates. A large private undertaking can exploit its bargaining position to the full and may, in fact, succeed in negotiating rates which include less than a proportionate share of the general overhead costs of the carrier. It is able to do so because of its ability to offer the carrier, in return, a firm commitment of the bulk—from 75 to 100 per cent—of its total traffic. For the government—whose volume of traffic is equalled by few commercial shippers—such arrangements would be difficult, if not impossible.

However, the experience of the Department of National Defence suggests that some reduction of costs are possible. By agreement between the Armed Forces and the carriers, special classes of rates have been established for the shipment of military stores. The primary object is to simplify the calculation and verification of charges for shipments made up of miscellaneous commodities to which, otherwise, a variety of rates would apply. The military stores rates provide a ceiling on freight charges, while leaving the Armed Forces free to ship at the standard rates whenever these are lower than the special rates. The resulting savings are not inconsequential.

The potential source of major savings lies in the consolidation of traffic into carload and truckload shipments. To illustrate: the military stores rate for less-than-carload shipments from Montreal to Winnipeg is \$4.89 a hundred-weight, but the carload rate is only \$3.10; to Vancouver the two rates are \$9.74 and \$6.25. Thus, consolidation of shipments into carloads yields savings in freight charges of about 35 per cent.

Several obstacles to the consolidation of government traffic must be overcome before any substantial economies can be achieved in this manner, particularly among the civil departments and agencies. Because of the relatively small volume of traffic generated by individual departments, it would be necessary to create a central traffic management organization responsible for the movement of all departmental shipments which lend themselves to consolidation. In addition, the dispersion of government operations throughout the country gives rise to exceptionally complex patterns of traffic. Any attempt at consolidation must, of necessity, be highly selective, concentrating on those shipping and receiving points and traffic routes where the volume is heaviest. At present, consolidation would be further impeded, even in major centres like Montreal and Toronto, by the lack of any integrated supply organization and central warehousing facilities. Under these circumstances, the costs of collecting, sorting and manifesting at shipping centres, of sorting, delivering or re-shipping at distribution points, and of accounting and billing

might outweigh potential savings in the cost of carriage.

For military traffic a large measure of consolidation has already been achieved. In 1960-61, for example, about 20 per cent of the tonnage shipped from the three main R.C.A.F. depots went in carload and truckload lots; for the four main naval depots, the proportion was almost 30 per cent, and a further 12 per cent was shipped by "piggyback" trailers; the three principal ordnance depots of the Army, shipping principally to regional and other large stores, moved about 80 per cent of their traffic by carload, truckload, pool car and truck, or "piggyback" trailer. (The differences among the Services are not necessarily a reflection of their traffic management skills, but result rather from their different supply systems.)

Any substantial further consolidation of military traffic could only be effected on a tri-service basis, and at this level the difficulties to be overcome closely resemble those affecting the traffic of civil departments. Consolidation of traffic from Montreal, for example, must reckon with the fact that the principal supply depots of the three Services are widely dispersed. Consequently, any attempt at general tri-service consolidation of traffic would interpose several additional steps in the already complex supply systems of the three Services. The alternative would be a substantial measure of integration of the three supply systems.

Thus, for both civil and military departments, the rationalization of traffic management must be related to the possibility of combining supply systems. Moreover, whether central traffic management is possible or desirable cannot be decided solely on the basis of the level of direct purchases by the government of freight, express and cartage services. As has been noted, the larger element in the government's total bill for shipments by common carriers is buried in payments to suppliers, as a result of the general policy of buying f.o.b. destination. These relationships between transportation and other aspects of supply will be examined in the next section.

One inescapable conclusion emerges: data on government shipments must be developed systematically to permit the assessment of existing procedure and of the net savings to be gained through the adoption of central traffic management. What must be determined is not merely the total volume of government traffic, but how much of this total lends itself to central management by virtue of potential savings that outweigh the costs of operating a central traffic organization.

We therefore recommend that: Data on government shipments be developed systematically with a view to ascertaining the possible economies to be gained through central traffic management.

TRANSPORTATION AND SUPPLY

In the year 1960-61, the federal government spent over \$550 million for supplies and equipment of all kinds, civil and military. Of this amount, almost \$70 million went towards the purchase of ships and aircraft, the delivery of which involved no freight charges; in addition, \$120 million represented purchases by local offices, largely from suppliers in their immediate vicinity and involved, generally, only local trucking. The remaining purchases, amounting to about \$360 million, generally required shipment by common carrier, with the exception of some of the vehicles purchased, which were delivered under their own power. Based on industrial experience, it is estimated that between five and seven per cent of the purchase price of these supplies represented delivery costs—roughly \$20 million to \$25 million. Of this amount, almost ninety per cent related to equipment and supplies purchased by the Department of Defence Production.

Increasingly, the practice of large commercial and industrial firms is to subject the delivery of their purchases to the control of their own traffic management groups. From experience they have found that savings are achieved by consolidating this incoming traffic and contracting directly with the carriers for its movement under agreed charges. In contrast to commercial practice, government normally places full responsibility for shipment on the supplier; it therefore becomes an element of cost to the latter, to be included in the purchase price charged to the government. The present policy became entrenched several decades ago, but circumstances have since changed radically. With growing competition among different modes of transportation, rate structures have become more complex and flexible, and shipping charges, to a far greater extent than before, a controllable element of cost. In response to this change, there have been rapid developments within industry in techniques of traffic management, coupled with much greater awareness of the relationship of transportation to purchasing and materials management. In effect, these developments have been ignored by the government in its own purchasing.

Even the slight element of control originally afforded by the existing purchasing policy has disappeared. With the increasing substitution of firm price for cost-reimbursement contracts, purchasing departments no longer receive detailed statements of their suppliers' costs to the same extent as previously and are consequently less able to judge whether shipment has been made by "the most economical and expeditious means". In fact, even where the cost data are received, this assessment can no longer be made with the same assurance as before; the greater complexity and flexibility of the

current rate structure, and the widespread adoption of agreed charges, have eliminated the relatively simple criteria by which freight charges could be measured two decades ago. Effective scrutiny of these costs today would require the existence, within each purchasing organization, of expert traffic advisers. Any case for the use of a government traffic organization must rest on incontrovertible evidence of significant potential savings. Such evidence is not now available. There is, however, a compelling case for getting the facts about the hidden freight bill. It has already been concluded that data should be obtained on the character and costs of the government's own shipments of goods as a basis for assessing the net savings available through central traffic management. The same information is needed in respect of shipments prepaid by the government's suppliers.

The analysis of traffic and the assessment of potential savings should concentrate first on the traffic generated by the central purchasing department. For this purpose, it will be necessary to create a traffic advisory group within the central purchasing and supply organization proposed in your Commissioners' report on *Purchasing and Supply*. Its task will be to make an appraisal of traffic patterns and develop cost data on a selective but ever-widening basis, for major shipping points and traffic routes. The advisory group should also evaluate the traffic pattern of other departments. Should these analyses disclose significant potential savings, the traffic advisory group could become the nucleus of a traffic organization, fully integrated into the central purchasing and supply department. But until such a development proved warranted, the advisory group should remain small, its primary task being to plan and direct the necessary studies.

Quite apart from the need to establish whether central traffic control is desirable, there is a need for such a traffic advisory group within the government. Among the tasks it could perform are:

- Drafting standards and procedures for the guidance of traffic management throughout all civil departments and agencies.
- Serving as a source of expert advice for traffic personnel throughout the government.
- Negotiating special rates with the carriers for government shipments, comparable to the military stores rates now available to the Armed Forces.
- Assisting in the training and development of traffic personnel throughout the government.
- Furnishing advice to the Treasury Board on traffic management matters (including the formulation of standards).

We therefore recommend that: A Traffic Advisory Group be established within the Department of Purchasing and Supply, to compile data on the movement of supplies and equipment to or within the federal government, and assess the utility of central management for this traffic (excluding movements within the military supply system); to negotiate with carriers to obtain suitable rates for government traffic not entitled to the military stores rates; and to advise the civil departments and the Treasury Board on traffic matters.

The task of traffic management, and the role of the Traffic Advisory Group, or of the traffic adviser in the Department of National Defence, must be adjusted to any changes in the supply systems within which they operate. Closer integration of supply for the three Armed Forces, changes in the location or function of depots and warehouses, either military or civilian, the adoption of central purchasing and supply for materials in common use, or changes in methods of inventory control which affect the frequency and scale of purchases and shipments—all these and other elements of the supply system must be taken into account in determining the most suitable approach to traffic management. In short, policies and practices in this area cannot be permitted to become static.

REVIEW OF CHARGES

Commercial traffic management places heavy emphasis on the audit of freight bills to detect unreasonable or incorrect charges, and as a check on routing control. The scrutiny of these accounts in federal departments is generally more extensive than industrial practice, but is far less effectual.

Because of limited volume, most departments are unable to develop and maintain audit staffs possessing the knowledge of routes, procedures and rates needed for this work. Only among organizations having relatively heavy traffic, such as the Department of National Defence, is there an awareness of the objectives and practices appropriate to the review of freight charges, and even here the level of skills falls short of the best industrial standards.

Your Commissioners, in the report on *Financial Management*, recommend that departments be made directly responsible for all financial transactions and the accounting related thereto. When this is done, their accounting and audit procedures will serve two management needs: first, measure the effec-

tiveness of departmental traffic procedures and, second, develop analyses of traffic data which will disclose the area where improvements may be effected. A problem may arise in departments where the volume of traffic will not justify expert staffing for this purpose; but there are various sources to which they can turn. Resort can be had to commercial consulting services which undertake specialized freight auditing for industry. Even larger departments might profitably employ these commercial specialists from time to time to test the adequacy of their own procedures.

A major defect in existing review procedures is their excessive cost, relative to the accounts reviewed. By commercial standards, an expenditure on review amounting to two per cent of expenditure for freight is considered reasonable. By contrast, using the Department of National Defence to illustrate because it maintains data, it costs about \$900,000 annually in salaries alone to review freight accounts amounting to less than \$7 million; thus, the proportion of audit cost to accounts exceeds thirteen per cent, involving excess costs of more than \$750,000 by industrial standards.

There is consequently a need for improved methods of review, and especially for the use of sampling techniques by which the intensity of audit can be graduated according to the amount of probable error. Industry has learned that review becomes uneconomic for accounts below a certain limit, varying from \$2 to \$10, depending on the nature of the business. Above this limit, sampling methods can be used, in conjunction with more intensive checks where chronic errors are discovered, until the point is reached at which comprehensive review becomes automatic. Adoption of such techniques has been recommended, in a more general context, in the report on *Paperwork and Systems Management*.

3

TRAVEL AND REMOVAL

TRAVEL

Government payments to common carriers for the transportation of public servants by rail, air, bus and ship in 1960-61 is estimated at \$17 million, of which \$5 million was incurred for the travel of the Armed Forces. In addition, more than \$5 million was paid in mileage allowances to public servants using their own automobiles.

Travel Services

Arrangements for the purchase of transportation vary widely. Some departments, notably External Affairs, Trade and Commerce and Veterans Affairs, maintain staff groups to arrange reservations for air, rail or steamship travel and hotels, and to buy and distribute tickets. This service is especially useful for overseas travel or domestic trips with complicated itineraries. In other departments, each employee makes his own arrangements, but may be helped by central administrative personnel. In the Armed Forces, transportation is controlled, for the most part, by routing and transport officers.

In 1955, the Organization and Methods Service of the Civil Service Commission investigated the possibility of establishing a central travel service and concluded that the advantages would be outweighed by the cost. Your Commissioners concur in their findings. Travel in Canada and the United States, which accounts for by far the greater part of the requirement, can be arranged with little difficulty and at the least possible cost by the officer himself or by his immediate staff.

Overseas travel—and movements of household effects—for the civil departments and agencies would be better served by a single organization. Such an agency might be established in the Department of External Affairs provided it is staffed by specialists, and the present departmental practice of assigning foreign service personnel on a short rotational basis abandoned. An alternative is to place this function in the hands of a commercial travel service with international connections—this course was adopted by the United Nations organization after unsatisfactory experience in operating a travel service with its own staff.

Your Commissioners have concluded that the existing arrangements for the movement of military personnel should continue.

Rates

Some public employees are entitled to travel on railway passes but most members of the civil departments travel at the normal rates charged to the public. However, the *Railway Act* provides that "members of the Armed Forces, and all policemen, constables or others travelling in Her Majesty's service shall, when required by the Minister or Deputy Minister of National Defence or any person having the superintendence and command of any police force, be carried by the railways on such terms and conditions and under such regulations as the Governor in Council makes." By virtue of this provision, special rates, significantly lower than those charged to the general public, have been negotiated for the classes named in the Act. In addition, the Armed Forces obtain ocean passages at 15 per cent discount in season, and 30 per cent in the off season.

Your Commissioners are informed that the railway companies have expressed a willingness to negotiate agreed charges for all government passenger traffic, both civil and military. The interest of both the government and the carriers might be equally well served by the negotiation of rates applicable to travel of all public servants on duty without any commitment of traffic.

We therefore recommend that: 1 Consideration be given to negotiating for fixed rates for the travel of military and civil personnel in the public service.

2 Either the travel section within the Department of External Affairs be reorganized to serve as a central agency for arranging overseas travel for all members of the public service or a travel agency be retained to provide this service.

Control and Review of Travel Expense Claims

The travelling public servant must conform to detailed rules which leave little discretionary power to even the most senior officers of departments other than to determine whether or not a trip should be made. Review procedures are detailed to the point of absurdity, for Treasury Board rules are expanded and refined by the Comptroller of the Treasury's Office to an extravagant degree.

In the Department of National Defence alone, about 400 man-years are devoted annually by Treasury personnel to the review of travel claims, at an estimated cost, for salaries alone, of \$1.6 million. In many instances, throughout the public service, payments are held up and massive correspondence entered into for very trivial reasons, yielding no significant reduction in expense.

Your Commissioners have already recommended, in their report on *Financial Management*, that responsibility be placed on departments for certifying to the Comptroller of the Treasury that expenditures will be lawful charges and funds are available, and that the responsibility of the Comptroller be limited to ensuring that departmental officers providing this certificate are properly authorized. It is again emphasized here that, subject to the right of the Treasury Board to prescribe general standards and the right of the Auditor General to scrutinize all financial control procedures and audit any transactions, the control of expenditures such as those incurred for travel is properly a responsibility of departmental management.

MOVEMENT OF HOUSEHOLD EFFECTS

The annual cost of moving (and storing) the furniture and effects of public servants transferred from one post to another is estimated at almost \$12 million. Eighty per cent of this, about \$9.5 million, is accounted for by the Armed Forces. Another \$400,000 represents the annual cost of removals for members of the foreign services of the Departments of External Affairs and Trade and Commerce.

Regulations require employees about to be transferred to another post to arrange for the movement of their household goods by obtaining estimates, from two or more carriers, of the probable cost of shipping their household effects, such estimates to be based on the rate per hundred pounds or per cubic foot.

In applying these regulations, departments differ widely in their practices. In some, the employee is told what movers are to be considered. In others, the effective choice is made by the employee. The Armed Forces have devised

the most detailed instructions: lists of satisfactory movers for each location are maintained and the serviceman is asked to state a preference. Three sealed tenders are obtained, and the mover preferred by the serviceman is engaged if there is no lower bid, or if the serviceman is willing to pay any cost in excess of the lowest bid.

Most long distance movers apply the standard tariff devised by the Canadian Warehousemen's Association; consequently, in most cases, the quoted rates per hundred pounds are uniform. Generally speaking, competition is based on service rather than price. Moreover, quotations submitted by movers are estimates only; billings for both packing and carriage are based on the work actually done. A low estimate may therefore give no assurance of a low price.

The Armed Forces, by developing a detailed specification for packing, with a standard packing rate based on weight, have succeeded in eliminating, to a significant extent, one of the most uncertain elements in moving costs. Consequently, the offer of a lower moving rate per hundred pounds can normally be treated as a genuinely lower bid for this job. In addition, the maintenance of lists of movers considered by all three Services to be satisfactory offers some assurance that at least minimum standards of service will be received.

For the civilian departments and agencies, it would be advantageous to adopt packing specifications comparable to those of the Armed Forces and to secure the packing rate based on weight which is applied to the movement of servicemen's effects. Competitive bids would then take on more meaning, and selection of the mover could be made in the same manner as in the Forces.

The cumbersome and costly procedures for the review of charges, to which freight movements and travel claims are subject, apply equally to the movement of household effects. In some departments it was found that, on average, direct clerical time costing over \$100 was devoted to checking a removal claim.

We therefore recommend that: Regulations covering travel arrangements for public servants be revised and simplified in order to reduce present costly checking procedures to reasonable proportions.

4

THE OPERATION OF VEHICLES

In 1960, civilian departments and agencies owned and operated more than 8,300 general purpose passenger vehicles and trucks. The Armed Forces had over 5,800 similar vehicles, bringing the total holdings of the federal government to about 14,150. This does not include either special purpose civilian vehicles, such as warehouse and farm tractors, and engineering equipment, or the operational vehicles of the Armed Forces.

Each year, these vehicles are driven about 150,000,000 miles, the equivalent of 6,000 trips around the world. Costs of garaging, supervision and depreciation were available in only fragmentary form, but apparently total at least \$15 million annually. In addition, full-time drivers are employed for most vehicles of the Armed Forces and for a number of those of the civil departments, at an annual cost in excess of \$20 million. Thus, the total cost of the vehicles fleets of the federal government, excluding special purpose equipment, is around \$50 million a year.

Among the civilian departments, three organizations operate almost sixty per cent of all vehicles: the Department of Agriculture with 1,700, of which almost half are trucks; the Royal Canadian Mounted Police with 1,600, of which over 85 per cent are passenger cars and station wagons; and the Department of Transport with 1,500, of which about one-third are passenger vehicles. At the other extreme, the Departments of Defence Production and Labour have only one automobile each, and the Department of Justice manages without any. In the Armed Forces, the Army is by far the largest operator, accounting for about 3,500; the Air Force has slightly less than half as many, and the Navy, about 600.

CONTROL OF VEHICLE OPERATIONS

The general supervision of civilian vehicles is vested in the Government Motor Vehicle Committee, a body of officials created in 1936 to assist the Treasury Board in controlling the purchase, hire, operation, maintenance, and replacement or disposal of motor vehicles, and the granting of mileage allowances for the operation of employees' vehicles on government business in their area headquarters. The Committee's one active role involves the examination of applications for the purchase of all new vehicles, either as additions to or replacements within departmental fleets.

Apart from this check on purchases, civil departments and agencies generally act independently in the management of their vehicle operations. Although Treasury Board regulations require the maintenance by all departments of standard records of vehicle operations and the submission to the Motor Vehicle Committee of periodic reports, there is, in fact, little uniformity in the bases on which records are compiled, and the Committee can make little use of the reports as instruments of control.

Each of the Armed Forces enjoys similar freedom in the management of its vehicles. In recent years, however, the Tri-Service Vehicle Committee, composed of officers representing each of the Services, has succeeded in achieving some measure of standardization in specifications, operating and maintenance instructions, and records.

PURCHASE AND REPLACEMENT

The controlling authority over purchase and replacement is the Treasury Board, and policy is defined in its regulations. The machinery for applying that policy is provided by the Motor Vehicle Committee—with, of course, a reserve power remaining in the hands of the Board itself.

Regulations prescribe that automotive vehicles must have Canadian or Commonwealth content at least equal to that required for customs duty drawback; passenger cars, which must be of the standard coupe or coach type, are to be bought only where the prospective mileage will be at least 6,000 annually for three years or more, and they are to be driven at least 60,000 miles before being replaced. In addition, the Board has restricted the accessories which may be ordered for government vehicles.

All purchases, whether of replacement or additional vehicles, must have prior approval by the Motor Vehicle Committee but, if the Committee rejects an application, the department concerned may appeal to the Treasury Board.

This approach to the central control of vehicle purchases grossly oversimplifies the factors to be weighed in deciding on acquisition or replacement.

The requirement that each new vehicle be justified individually, in terms of its prospective use, is virtually meaningless if the vehicle concerned, as is usually the case, will be operated as one unit in a general purpose fleet. The requirement of 60,000 miles of use before replacement is undoubtedly more often inappropriate than not. Many factors must be considered in deciding when to replace a vehicle, of which mileage is only one. Age must also be taken into account: long before reaching the stipulated mileage, passenger cars and light trucks with low annual usage will lose heavily in resale value and may become very costly to maintain through body corrosion or general fatigue of their lightly-built working parts. Operating conditions are equally important: some vehicles are driven exclusively on first-class highways, others on very rough roads. Vehicles which, like those used on police duty by the R.C.M.P., have high annual mileages and consequently low depreciation costs per mile, may warrant annual replacement in order to avoid heavy maintenance charges. Obviously, all these factors must be considered in determining the most economic point for replacement of a vehicle.

Your Commissioners have emphasized, especially in the volume entitled "Management of the Public Service", that there is an overriding interest, properly vested in the Treasury Board, in the maintenance of standards throughout the government. The Board is properly concerned with the performance of departments, including the efficacy of departmental procedures for determining operating requirements and controlling the use of resources. But meticulous and inflexible regulations, interpreted and applied by central organizations, are self-defeating. Subject to any general policies laid down by the Board, decisions with respect to replacement of vehicles can best be made by departmental management.

THE USE OF VEHICLES

The annual mileage of cars and trucks ranges from a few hundred (in exceptional cases) to 30,000 or more at the other extreme. Automobiles used for police duties by the R.C.M.P. average about 25,000 miles annually, but the general purpose trucks of the Force average just half this mileage. Vehicles of the Geological Survey Branch of the Department of Mines and Technical Surveys average only 6,400 miles a year, largely because many vehicles are laid up during the winter.

In some instances, special requirements explain low utilization. For example, at Bedford the Navy has a number of diesel trucks with mileages averaging less than 5,000, but safety considerations require the use of such expensive vehicles for transporting ammunition. Again, vehicles may have

to be provided in isolated locations, especially in the North, although the annual usage may be relatively slight.

One frequent cause of under-employment is a fragmenting of control. The attitude of many organizations is summed up by an observation of one department that cars and trucks are only tools needed by the men in the field to do their work. This attitude has much in its favour, and an overriding concern with getting on with the job is the mark of a healthy organization. But enthusiasm must be tempered by a proper regard to cost, and a willingness to accept reasonable controls. It is the task of departmental management to strike the proper balance; the point at which it is to be found will vary from one organization to another, and within a department according to the role which vehicles are expected to play.

The foregoing considerations are particularly appropriate to the question of "pooling" *versus* "allocation" of vehicles. Against the understandable desire of operating groups and field officers to have full control over their own vehicles, must be set the almost certain increase in cost (or decrease in utilization) which results from fragmented control and supervision. Pooling of vehicles should be the general aim, and every assignment to a specific use must justify itself.

Pooling can be attempted on two bases: first, within a department or agency and second, within a locality. Under existing conditions, with control of vehicle operations entirely in the hands of the individual departments, only the first alternative has been tried.

Pooling of vehicles is most extensive in the Armed Forces. Apart from staff cars assigned for the personal use of senior officers, virtually all vehicles are operated in transport pools. Among civilian departments and agencies, allocation of vehicles to specific duties is a more common practice. This is obviously necessary for officers whose duties involve extensive field travel—inspectors and the like—but is less clearly justified for purely local use by individual branches or divisions of an organization. At National Research Council laboratories, for example, certain vehicles are allotted to engineering departments, with a complete severance from the control of those operating the rest of the fleet. In particular cases, especially at regional centres, geographic dispersion of the activities of a department may make this fragmentation of control unavoidable, but wherever activities are concentrated, pooling of the vehicles of a department should be the normal rule.

Interdepartmental pooling within particular localities is virtually unknown in the federal government. The most obvious locality in which such an arrangement might be considered is the Ottawa-Hull area. A study made in 1955 by the Organization and Methods Branch of the Civil Service Commission indicated that a regular inter-building mail and messenger service in Ottawa,

operated by the Ottawa Post Office, could yield savings of at least \$12,000 annually. This is a conservative estimate. Centralization of general utility vehicles is also possible, with further savings to be gained. However, the planning needed to create this messenger vehicle pool was not undertaken. Your Commissioners are of the view that this proposal should be proceeded with, because of the immediate savings and in order to gain experience in the formation and operation of an interdepartmental pooling practice which might be extended to other services and localities.

- We therefore recommend that:*
- 1 Plans be developed for the creation of local messenger and trucking services in Ottawa for common use by all departments and agencies.
 - 2 The Treasury Board initiate studies of the feasibility of similar local transport pools in other major centres.
 - 3 Pooled service be provided on a cost-recovery basis.

One further question relative to the use of vehicles remains to be examined: what are the legitimate uses for which government vehicles should be employed? Regulations explicitly prohibit the use of all government vehicles for personal purposes, except with specific authorization by the Treasury Board. The rule is sound; but should exceptions require Treasury Board authorization? More appropriately the role of the Board might be to prescribe the general rules, with their application left to departmental authorities.

Where passenger cars are public property, a problem is the establishing of a dividing line where official need merges into official perquisite. This is a far more sensitive matter in government than in private enterprise. Moreover, thirty years ago the decision was taken to dispose of all limousines provided for the convenience of cabinet ministers and the deputy heads of departments, and this decision, confirmed by Parliament, has never been varied.

World War II needs resulted in many automobiles being acquired for military and civil officials in the Department of National Defence. Currently, there are approximately 1,350 passenger cars and station wagons in use by the Forces with, almost invariably, a driver assigned. It has been estimated that, with driver, operating cost is in the nature of 39 cents a mile. There is, therefore, both a significant cost factor and an inconsistency between civil and military practices, this being particularly noticeable in the upper echelons of the public service.

We therefore recommend that: A review be made of Armed Forces' policies and practices respecting the use of passenger vehicles to the end that there be consistency throughout the public service.

OWNERSHIP OR HIRE

As an alternative to government ownership, your Commissioners have considered the possibility of rental from commercial leasing concerns. It is concluded, however, that such arrangements offer no likelihood of savings. The experience of two federal organizations which now rent limited numbers of automobiles—the Canadian Broadcasting Corporation, and the Standards Branch of the Department of Trade and Commerce—discloses that annual rental charges are more than double the depreciation costs on Crown-owned vehicles; the tasks of managing, operating and maintaining remain unchanged, whether vehicles are owned or leased. Consequently, rental of automobiles should be resorted to only to meet temporary or emergency needs.

In certain agencies, such as the Department of Public Printing and Stationery, pick-up trucks are used with a full-time staff of drivers, for the sole purpose of providing a delivery service. Taking account of overhead, depreciation, driver costs and all other expenses, a more economical service could be obtained by hiring commercial cartage companies. Such companies can normally make greater and more economical use of equipment and staff.

Official Use of Employees' Vehicles

A further alternative to government ownership is the use by public servants of their own automobiles for official duties, with suitable compensation. The use of private cars for occasional travel on official business is governed (in detail) by the Government Travel Regulations. Regular use of employees' vehicles on public business in the headquarters area must be sanctioned by the Motor Vehicle Committee.

Full control of this practice, like the control of purchasing, should revert to departments, the concern of Treasury Board and the Motor Vehicle Committee being limited to the formulation of general policy and standards. Under the latter heading, two main questions arise: first, under what circumstances is the practice desirable or permissible and, second, what rate of compensation should be granted?

On the first point, policy must be sufficiently flexible to allow departments to adapt their arrangements to local conditions. The degree of isolation of the post will be of relevance, and whether or not the department is operating

vehicles of its own in the same locality. Usage must also be considered; beyond certain limits (say, in most cases, 10,000 miles annually) purchase by the department may be more economical.

The government does not insure its own vehicles and does not require its employees to insure their cars when using them on government business. There is provision, however, to assist the employee whose car is insured at the higher rates for business use.

The application of allowances throughout the country ignores certain marked differentials in operating costs. The experience of the R.C.M.P. in operating its own automobiles discloses that running and maintenance costs, although reasonably uniform in the more settled parts of the country, are 2.1 cents a mile higher in Newfoundland than in Ontario, and 2.3 cents a mile higher in the Northwest Territories. In fairness to employees, these differentials should be recognized, and mileage allowances should be adjusted accordingly.

MAINTENANCE AND REPAIR

Unco-ordinated departmental control has produced the greatest conceivable variety of standards and practices in the repair and maintenance of vehicles throughout the government. In part, this is an inevitable consequence of the geographic dispersion of operations and the widely varying roles of vehicles in the many different activities of government. In part, however, it reflects a failure to develop appropriate and consistent standards of maintenance.

Each department decides whether to prepare a manual of maintenance, and what to put in it. A review of forms relating to garage maintenance and repairs, the issue of supplies and parts, and general inspection show neither uniformity nor consistency. Some departments have a preventive maintenance programme; others do not. Lubricating programmes vary from oil changes and greasing every 500 miles, in the Department of Public Printing and Stationery, to 1,000 mile changes in most civil departments, and a formula in the Army requiring changes only every 5,000 miles, with chassis lubrication every 1,000 miles; the Air Force requires oil changes and greasing, in automobiles and light trucks, for every 100 gallons of gasoline consumed.

The Armed Forces generally, and the Army in particular, show a much greater concern with vehicle maintenance than do civilian organizations; among the latter, the R.C.M.P. has the most highly developed maintenance programme. Army instructions for the operation and care of vehicles are voluminous and are so prepared that the raw recruit can readily discover what he is expected to do with a vehicle in any situation. A programme of periodic inspections is carried out, with systematic running maintenance and detailed

seasonal servicing. The R.C.A.F. has conducted an intensive examination of the operation and care of automotive equipment, and has prepared comprehensive instructions to improve control. The written instructions of the Royal Canadian Navy, by comparison with the other services, are relatively sketchy, although more detailed manuals are being prepared; however, the investigation indicates that naval maintenance standards are high.

The proportion of work done in government garages and repair establishments varies widely. Because of the dispersion of operations, many vehicles cannot conveniently be maintained in government shops. Among civilian departments, about two-thirds of all vehicles are repaired by commercial firms. The following figures are significant because they include more than fifty per cent of the vehicles in civilian departments:

Table 1—VEHICLE REPAIRS AND OVERHAUL IN NON-GOVERNMENT SHOPS

<i>Department</i>	<i>Vehicles (Approximate)</i>	<i>Work Done by Commercial Shops</i>
Agriculture	1,700	75%
R.C.M.P.	1,600	65%
Transport	1,500	45%
Northern Affairs	950	25%

Other organizations, having smaller fleets, contract out by far the greater part of their work: the Department of Mines and Technical Surveys, for example, with about 300 vehicles, places ninety per cent of its work with commercial firms.

Stated generally, your Commissioners consider the use of commercial repair facilities the more economical—for reasons set out in the report on *The "Make or Buy" Problem*. The maintenance and repair of certain military vehicles, for example, is undertaken by means of annual contracts placed with the major manufacturers, under which repairs are made at dealers' garages. Commanders of Service units may select an approved dealer conveniently situated to carry out any necessary repairs. Charges for labour are based on prevailing rates; parts are provided at favourable discounts under master contracts entered into annually with manufacturers; the invoicing under these arrangements is done by the manufacturer. The master contracts for the supply of parts also apply to parts needed for repairs made in the workshops of the Armed Forces.

Among civilian departments, repair contracts with commercial garages are generally governed by the contract regulations, requiring the calling of competitive tenders and acceptance, as a normal rule, of the lowest bid. This procedure is clearly inferior to the arrangement under which repair services and

parts are purchased for the Armed Forces.

There are circumstances in which the government must establish its own garage and repair facilities: in northern locations, for example, or where for other reasons no other facilities are available. Where such conditions prevail more consideration should be given to integrating such facilities, with a view to sharing them wherever possible. This move would be facilitated by, but need not be conditional upon, the development of common maintenance standards for all government vehicles. In the absence of a common-service local transport agency, however, allocation of responsibility for the operation of shared facilities would have to vary from one locality to another, and must be decided in the light of local circumstances.

Government workshops tend to be over-equipped and over-staffed. A typical commercial transport company was found to have a repair staff in the ratio of one man to every twelve vehicles in the fleet. Government workshops, on the other hand, are generally staffed at about twice this scale. For example, the workshops of both the National Research Council and Atomic Energy of Canada Limited handle less than six vehicles per man, and the mileage of these vehicles is relatively low. The same is true in the Armed Forces. The Royal Canadian Army Service Corps workshops, for example, which handle only servicing and lighter repairs, show a ratio of slightly over five vehicles per man; high levels of staffing also exist in the workshops of the Royal Canadian Electrical and Mechanical Engineers, where heavy repairs to Army vehicles are made. The standards of care, and especially of preventive maintenance, are undoubtedly high in the Army, but the cost of maintenance is excessive.

The record of vehicle maintenance and repair in the R.C.M.P. demonstrates that high standards can be reconciled with economy of effort. The vehicles of the Force have, on average, the highest annual usage of all government vehicles and standards of maintenance are also high. Yet the ratio of vehicles to staff at R.C.M.P. garages ranged from 9:1 to 12:1.

Repairs in Penal Institutions

Repair services are also provided by the federal penal institutions, partly as a means of providing vocational training for inmates. The Industries Division is now planning to provide major overhaul and repair services to government departments as part of the industrial rehabilitation programme. In fact, for some years now, a number of vehicles of the Department of Mines and Technical Surveys in the Ottawa area, which are idle in winter, have been sent to the Collin's Bay Penitentiary near Kingston for overhaul. The medium-security Leclerc Institution, near Montreal, has begun to provide some repair service

for government vehicles in that area, and penitentiary officials hope to develop this further both at Leclerc and at the corresponding Joyceville Institution near Kingston. Similar programmes may, at some future date, be attempted in western institutions.

These programmes and plans are relatively modest because the number of vehicles that can be accommodated is limited, and only major mechanical and body repairs can be undertaken. Use of these services cannot be justified on a strict calculation of cost and convenience. Vehicles to be overhauled at Joyceville or Collin's Bay, for example, must be drawn largely from the Ottawa or Toronto areas, more than 100 miles distant. Vehicles must also be taken out of service for longer periods than would be the case were the work done in local commercial garages. However, in view of the primary purpose of the programme, such considerations do not apply with the usual force. Certainly the programme lends itself well to the overhaul of seasonally-employed vehicles from points near the penal institutions and, of course, of vehicles of the institutions themselves.

The determination of charges for this service presents difficulties if departments are to pay approximately what comparable work would cost in a commercial garage. Inevitably, productivity in the penal institutions is well below that of commercial shops; labour costs are therefore billed at from 35 to 45 per cent of the standard commercial rates for mechanical repairs, and from 30 to 40 per cent of the commercial rate for body work. With experience, the pricing basis can be further refined.

RECORDS AND COST CONTROL

Despite the heavy investment in vehicles and the substantial costs of operations, few departments devote much attention to the maintenance of cost records. All civilian departments are required, by Treasury Board regulations, to complete periodic reports prescribed by the Government Motor Vehicle Committee, but few departments make any use of these records for internal control.

Properly completed, these forms could provide a valuable record of direct costs of vehicle operations, excluding driver costs, and a useful instrument of management control. In fact, their potential value has been largely vitiated by inaccuracy and inconsistency in compilation. One department shows operating costs as low as 1.6 cents a mile. Another records little cost for tire replacement on vehicles that have been driven 30,000 to 70,000 miles. Labour costs incurred in departmental garages are charged at the rate of \$3.00 an hour by the Civil Aviation Branch of the Department of Transport, at \$1.25 an hour by the R.C.M.P., and the Department of Agriculture makes no charge.

Some departments record the gross purchase price as capital cost; others use the net figure after deducting trade-in allowance. Some departments record a storage charge for vehicles left outdoors, while others charge nothing for vehicles stored in departmental garages. Although the regulations require completion of the annual reports by June 30, three months after the year end, some departments take much longer—undoubtedly reflecting the indifference towards cost records which is all too prevalent.

Responsibility for the present state of cost records must be shared by the Treasury Board and the departments. The Board, through its regulations and the Motor Vehicle Committee, has declared itself the controlling authority, but has failed to insist that its own stated requirements for cost data are met. The departments, on the other hand, have generally failed to recognize their primary responsibility for the management of their own vehicles. There are exceptions: the R.C.M.P., for example, although some of their costing practices are questionable, have been consistent in maintaining their records, and have met the requirements of the regulations conscientiously.

Undoubtedly, the use of standard records of vehicle costs throughout the government represents a sound approach to management control. With the re-definition of Treasury Board and departmental roles proposed by your Commissioners in the volume on "Management of the Public Service", the value of such records would, in fact, be enhanced. But the Treasury Board and the departments share a responsibility for ensuring their effective use.

In contrast to most civilian departments, the cost records kept by the Armed Forces are detailed and precise. In the Army and Air Force especially, accounting procedures are prescribed in almost overwhelming detail, and target operating costs are maintained for each type of vehicle. However, the development of cost data is only a means to an end—the control of costs. An examination of Army records discloses that costs are high, not only by commercial standards but also by comparison with Air Force and Navy records. This is particularly applicable to maintenance and repair costs.

RE-DEFINITION OF FUNCTIONS

There emerges from the foregoing a re-definition of the functions of the departments and Treasury Board in the control of vehicle operations. Primary responsibility should rest on the departments, embracing the definition of needs, the application of adequate standards of use and maintenance, the development of proper records and cost control, and the training and development of qualified personnel. The Treasury Board, on the other hand, should concern itself with the formulation of standards, the assessment of departmental management

and, in addition, with the development, where appropriate, of interdepartmental vehicle pools and shared repair facilities.

In performing its task, the Board will need counsel as to the standards and practices best suited to the operating needs of the departments, as well as technical advice. A reconstituted Government Motor Vehicle Committee is therefore required. Shorn of its present task of screening purchase proposals, the Committee should concern itself with the drafting of standards governing the selection and acquisition of vehicles, operation, maintenance and repairs, contract arrangements for purchasing vehicles, parts, lubricants, repair services, etc., and the commissioning of studies of possible pooling arrangements for operation or maintenance. The Committee should be representative of the operating departments and the central purchasing department.

We therefore recommend that: A reconstituted Government Motor Vehicle Committee be established to advise the Treasury Board on standards for guiding departments in the management and maintenance of their vehicles.

5

THE OPERATION OF WATERCRAFT

Federal departments and agencies employ almost every conceivable kind of watercraft, from an aircraft carrier and icebreakers to sailing dinghies, outboard motorboats and canoes. Problems of management and operation are diverse and the observations which follow relate only to powered watercraft requiring the full-time services of specialized personnel for their operation, excluding those manned by naval personnel.

Within this group of vessels, two classes can be identified: first, larger sea-going vessels, manned for 24-hour watchkeeping; second, non-watchkeeping craft with only limited sea-going capabilities, which usually seek shelter and tie up overnight. The first group includes icebreakers, supply ships and large research and patrol craft. The second group comprises small patrol vessels, tugs, launches for personnel transportation, work boats and other small craft engaged in day-to-day duties.

In 1960, the civilian departments and agencies operated 63 watchkeeping vessels, and nearly four hundred of the smaller craft. In addition, the Royal Canadian Navy operated ten watchkeeping and 150 smaller auxiliary vessels, manned by civilian crews; five of the larger ships were engaged in scientific research, the rest providing a variety of services in direct support of naval fighting ships.

These 600 vessels represent a capital investment, at original cost, of some \$150 million; their replacement today, from Canadian yards, would cost in excess of \$450 million. Direct annual operating costs exceed \$30 million, and total annual charges, including depreciation and overhead, approach \$50 mil-

lion. Operation of the vessels requires over 3,600 officers and seamen, including some seasonally employed.

DISTRIBUTION AND FUNCTIONS

In 1960, as shown in Table 2, thirteen departments or agencies of the federal government operated these vessels.

Table 2—VESSELS—CIVILIAN MANNED

	<i>Watchkeeping</i>	<i>Other</i>	<i>Total</i>	<i>Annual Direct Costs</i>	<i>Operating Personnel</i>
(\$ million)					
Royal Canadian Navy	10	150	160	3.7	600
Department of Transport	47	106	153	18.0	1500
Department of Mines and Technical Surveys	7	51	58	2.0	370
Department of Fisheries	4	74	78	2.0	350
R.C.M.P.	4	28	32	1.5	273
Fisheries Research Board	1	17	18	.6	77
Public Works* .....	...	86	86	2.7	400
National Harbours Board .....	...	7	7	.2	45
St. Lawrence Seaway Authority .....	...	7	7	.2	12
National Revenue (C & E) .....	...	3	3	†	7
Citizenship & Immigration .....	...	5	5	†	5
National Health & Welfare .....	...	2	2	†	4
Northern Affairs and National Resources .....	...	2	2	†	4
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	73	538	611	30.9	3647
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

*Most DPW waterborne operations are essentially engineering tasks, especially dredging, and boat operators cannot be clearly distinguished from engineering personnel, nor can costs be segregated; consequently the figures given here are somewhat arbitrary estimates.

†Less than \$100,000.

ROYAL CANADIAN NAVY—CIVILIAN AUXILIARIES. A substantial number of auxiliary vessels are employed at the principal naval bases: over 100 in Halifax and about half as many in Esquimalt. The subsidiary base and dockyard at Sydney, Nova Scotia, has several small tugs and lighters for moving and servicing naval vessels. Except for ten larger craft, all are essentially harbour craft: fireboats, tugs, lighters, and passenger launches. Of the ten larger

watchkeeping craft, five are stores supply and maintenance vessels for fighting ships, and the remaining five are used solely for scientific research to meet defence requirements.

DEPARTMENT OF TRANSPORT—MARINE SERVICES. Among the civilian departments and agencies, the Department of Transport is by far the largest operator of ships, with almost 80 per cent of the watchkeeping vessels, 70 per cent of the annual direct costs, and over 50 per cent of the specialized personnel. It is responsible for all those waterborne functions of the federal government not specifically assigned elsewhere, and participates, in varying degrees, in much of the work of other departments and agencies. Generally, it has primary responsibility for all forms of aid to navigation—other than hydrographic surveying and charting—including ice-breaking, buoy and lighthouse supply, maintenance of navigational aids, the provision of weatherships, and the direction of search and rescue operations. In addition, it maintains ship channels in the St. Lawrence and Saguenay Rivers, performs some oceanographic and ice research duties, and provides supply services to the North. As a result of a recent decision to build eight safety-patrol vessels, the Marine Operations Branch is being recast as a coast guard service, with enlarged responsibilities for search and rescue and for general patrol, and the enforcement of marine regulations.

At the time of the inquiry, the fleet of the Department included ten heavy icebreakers, eight light icebreakers and buoy supply vessels, four survey vessels for ship channel maintenance, three weatherships, three lightships, a hydrographic and meteorology vessel in the Great Lakes, a supply vessel and over 110 tugs, landing craft, self-propelled barges, pilot boats, shore-based life boats, and other workboats.

DEPARTMENT OF MINES AND TECHNICAL SURVEYS—HYDROGRAPHIC SERVICE. This Department has primary responsibility for hydrography and oceanography, embracing the measurement and description of seas, rivers, lakes and other waters, and the determination of tides and currents. To carry out these tasks, the Hydrographic Service owns and operates seven ships ranging in size from 109 to 3,500 gross tons—with additional larger vessels now being built or planned; to these are attached twenty-four launches for working close inshore, and another twenty-seven launches are used on inland and coastal waters.

DEPARTMENT OF FISHERIES—CONSERVATION AND DEVELOPMENT SERVICE. The Fisheries Department patrols over 200,000 square miles of Atlantic and Pacific coastal and offshore waters. For this task, the Conservation and

Development Service uses a fleet of 78 vessels, four of which are deep-water ships.

FISHERIES RESEARCH BOARD. This semi-autonomous agency associated with the Department of Fisheries operates eighteen vessels in support of four marine biology stations and an Arctic research unit. Apart from a 167-foot trawler-type research vessel built in 1959, these are shore-based craft.

ROYAL CANADIAN MOUNTED POLICE—MARINE DIVISION. The R.C.M.P. operates a fleet of thirty-two vessels, four of watchkeeping category, for patrol and law enforcement tasks. In addition, it performs marine search and rescue functions.

OTHER. The Department of Public Works owns and operates 29 dredges, 30 tugs, and 27 workboats, together with scows, barges and miscellaneous craft needed for its dredging tasks. Some other departments have small craft, principally tugs and launches, for transporting their own personnel and equipment in and around harbours and docks, and for the administration of Indian and Eskimo affairs.

CONTROL AND UTILIZATION

It will be observed that the waterborne operations of most departments are specialized and, as a consequence, each department or agency has almost unqualified control over the use of its own watercraft. The Treasury Board exercises control over additions to and replacements within departmental fleets, regulates the method and terms of employment of seamen, and establishes rates of pay. But departmental control of the use of ships in support of approved programmes is unrestricted. Only for marine search and rescue operations which, by Cabinet direction, have been placed under the control of the Department of Transport, is there any significant exception to this rule.

Control by the individual departments tends to accentuate the specialization of waterborne operations. Each department seeks to acquire vessels designed specifically to meet its own particular requirements and all the equipment needed for its own purposes; consequently the utilization rates of many ships are low.

Utilization

Among the smaller vessels many operations are seasonal, and movement to ice-free locations for the winter months is not practical because of cost and lack of alternative employment. In several instances, however, low utilization rates raise doubts about the need for special craft.

One such instance concerns two launches operated by the Quarantine Services of the Department of National Health and Welfare, to transport medical authorities to and from ships in Halifax Harbour. One of these launches is already considered by the Department as surplus, while operating costs of the other, which is used only about fifty times a year, are \$15,000 annually. This service could be provided by the pilot boats or by the use of water taxis. Similarly, the Department of National Revenue operates three vessels at Saint John, N.B., St. John's, Newfoundland, and Sydney, Nova Scotia, to carry Customs and Excise officers to ships at anchor. This need could be met in the same manner as that of the Quarantine Service. Such action would save as much as \$50,000 annually, and would take the two departments out of water-craft operations.

We therefore recommend that: The Departments of National Revenue and of National Health and Welfare dispose of their harbour launches.

Watchkeeping vessels operating in open waters should not be out of service, by commercial standards, more than about ten per cent of the year; an economic utilization rate would thus be 325 days or more each year.

Usage of many government vessels falls far short of this ideal. This is particularly true of those ships operated for a single task which is seasonal. For example, because nautical surveying can only be carried out during good weather, the seven ships of the Hydrographic Service operate on an annual programme of about seven months; during the remaining five months, the vessels are de-commissioned, seamen and deck labourers are laid off, and senior officers are retained at reduced rates as watchmen and to undertake running repairs and inventories preparatory to the annual overhaul. Actual usage is only 45 per cent of the potential.

Out-of-pocket operating costs for these seven vessels amounted to \$1,409,-543 during 1960-61, and capital costs raise the annual charges to over \$2 million—nearly \$2,300 for each day of actual use. By commercial standards this is an exorbitant cost for vessels of this type.

The rates of usage of watchkeeping vessels in other departments are somewhat better, but still far from ideal. The 47 ships of the Department of Transport fleet were in commission for about 86 per cent of the year, but time spent in undergoing repairs, refits and alterations, and time lost in weekend tie-ups brought the utilization rate down to about 60 per cent of potential. The Department is undertaking a detailed survey of its operating requirements and equipment and is also planning a major replacement and expansion programme.

But utilization cannot be judged only by days in operation; the duties performed must also be assessed. In many cases, these duties represent decisions of policy taken by the government and so cannot be judged on grounds of economy only; certainly this applies to activities like scientific research, ice-breaking, and the patrol activities of the R.C.M.P. and the Department of Fisheries. However, where watercraft are used simply to transport personnel or supplies, the costs, relative to other possible modes of transportation, are of significance. This is particularly applicable to the supply tasks of the Department of Transport.

Examination of supply trips chosen at random indicates that savings can be made in this regard. To illustrate, the supply and maintenance vessel *Sir William Alexander* was found to have made a supply voyage which, with loading time, took ten days to deliver less than thirty tons of cargo at twenty-one ports of call. With daily operating costs of \$2,500, including capital charges and a five per cent allowance for overhead, it cost over \$800 a ton to deliver the cargo.

The improved access to coastal points overland or by helicopter, permits radical changes in supply arrangements. The Department of Transport now has one helicopter in service on the Pacific Coast and plans to acquire another.

We therefore recommend that: The Department of Transport accelerate its plans for revised methods of supply to coastal stations.

Ownership or Charter

Four government organizations currently charter commercial ships: the Department of Transport for northern supply services to the Eastern Arctic (\$2.4 million in 1960-61); Department of Fisheries to satisfy peak seasonal demands for patrols (\$123,000); Department of Mines and Technical Surveys for hydrographic surveys (\$281,000); and Fisheries Research Board for field operations (\$102,000).

The Department of Transport follows an interesting practice of contracting with private shipping companies to build vessels suitable for northern supply service. The Department is using three such vessels, under contracts extending for a term of years and guaranteeing not less than ninety days charter service annually. During the balance of the year the owners are free to use the ships commercially.

The Department of Fisheries and Fisheries Research Board charter large numbers of vessels annually, but only of very limited size. In 1960, a total of 165 vessels were engaged for periods ranging from several days to six months. For the greater part, these were fishing boats obtained locally by fisheries pro-

tection officers and scientists to supplement their permanent facilities during the peak season. However, commercial interests are not generally interested in chartering during the season when the returns to be expected from fishing operations are greatest, but a good balance has been struck between ownership and charter.

For a number of years, the Canadian Hydrographic Service has chartered several small vessels to supplement its own equipment. However, this Service has embarked on a major programme for the expansion of its own fleet, and the use of chartered ships will be for marginal requirements in the future.

In the course of the inquiry, several opportunities for achieving economies by greater use of commercial services were observed, involving in each case the use of smaller craft in major harbour areas. For example, the *Sir Hugh Allen*, operated by the National Harbours Board in Montreal, has become excessively costly in relation to the services it provides; in view of the extensive commercial services available in the port area, replacement is unnecessary. It was also noted that there is inconsistency in the provision of pilot boats. Government-owned craft are necessary at pilot stations such as Anse-aux-Basque, at the mouth of the St. Lawrence River, where commercial harbour services do not exist. Where pilot services are associated with harbours, commercial services have been used satisfactorily for transporting pilots at Three Rivers, Port Weller, Sarnia and Vancouver. On the other hand, the Department has operated its own pilot boats at Halifax, Sydney, Saint John and St. John's, where commercial facilities are available. Moreover, the Department tends to acquire elaborate craft; the two new replacement pilot boats acquired in 1961 cost more than \$200,000 each.

It is the view of your Commissioners that charter should be resorted to wherever possible, and that private operators should be encouraged to acquire multipurpose vessels capable of meeting government needs. Operating departments have an understandable preference for special purpose ships, subject at all times to their own control. But the steeply rising cost of new ships and of manning justify such action only where there is full economic utilization. Narrow specialization in design and use must therefore be avoided, even at the price of some loss in efficiency for a specific task.

Re-allocation of Functions

In any search for improved utilization and reduced costs, the first avenue to be explored is the possible integration of functions as a means of reducing the existing specialization of operations. In its most extreme form, this would involve the concentration in a single department or agency of all activities requir-

ing the use of watercraft. This cannot be seriously proposed; hydrography, ice-breaking, fisheries protection and dredging clearly have little in common with each other.

Integration of functions may, however, be considered on a narrower basis, to combine activities having generally common characteristics. It is noted, for example, that three organizations are currently engaged in hydrographic and oceanographic work: the Department of Mines and Technical Surveys, the Department of National Defence, and the Department of Transport. The work performed by the Department of Transport is, however, of relatively minor significance, and any proposal to merge the operations of the Hydrographic Service with the oceanography carried out by naval auxiliary vessels presents the question of the relationship between work conducted for defence purposes and civilian research. The need for co-ordination of oceanographic activities has been partly recognized in the formation of the Canadian Committee on Oceanography, representing all the departments involved.

A promising field for integration is developing in marine patrol and law enforcement activities. At present both the Department of Fisheries and the Royal Canadian Mounted Police operate patrol vessels for law enforcement. The Fisheries vessels, however, also perform duties relating to the study and management of the fisheries. A third agency has now entered the field with the establishment by the Department of Transport of a coast guard service. The overlap and duplication which will result cannot be justified on any grounds and your Commissioners can see no reasonable alternative to assigning the patrol and enforcement task to a single agency. While the non-police functions of the Department of Fisheries may require the employment of some vessels by that Department, the logical development of the coast guard concept requires the grouping in a single force of the whole of the police function. The R.C.M.P. operation is a highly effective one, well staffed, well disciplined and characterized by high morale. The attainment of comparable standard must be an objective of the coast guard service if it is to assume responsibility for this function in place of the R.C.M.P.

We therefore recommend that: The development of patrol cutter operations by the Coast Guard Service, and the continuing operations of the Department of Fisheries patrol vessels and the R.C.M.P. Marine Division should proceed only on the assumption that the latter services will be absorbed by the former to the degree that this can be done without serious injury to efficiency and morale.

OPERATING METHODS AND STANDARDS

Regardless of the tasks for which they are employed, the operation of all vessels involves common problems of manning, supply, maintenance and accounting. However, except for Treasury Board regulations governing employment practices, pay and certain other aspects of personnel management, these matters are left almost entirely within the control of the various operating departments and agencies. As a result, little uniformity exists.

Management

Organization and procedures for the management of watercraft range all the way from a highly specialized and centralized system in the Department of Transport to almost complete devolution of control to operators in departments with limited holdings.

Until 1960, vessel management and control in the Department of Transport was vested primarily in the Department's marine agents, of whom there are eleven. This decentralized control proved too restrictive, and operations, since 1960, have been directed by the Operations Branch of the Marine Service. The marine agencies continue to serve as operating bases, and marine agents are responsible for the manning, accounting, husbanding and efficient technical operation of the vessels in their charge. But the Operations Branch, in addition to controlling the allocation of ships to various functions and among the agencies, has developed Marine Service Orders regulating in detail almost every facet of the operations. Control of vessels not being used for specific agency work may revert to the Branch headquarters—for northern supply tasks, for example—or may be assigned to other operating centres such as the Marine Search and Rescue co-ordinators or the Ice Information Centre. The new arrangements have not yet been adequately tested and no general judgment can be passed; however, specific weaknesses were observed in particular aspects of management, which will be noted below under the appropriate headings.

No other civil department has gone as far as the Department of Transport in developing a specialized vessel management organization. Among the major operators, the Fisheries Research Board maintains the most decentralized system, with management left almost entirely to the master of each vessel, who reports to the senior scientists at the research station to which the vessel is attached. Management of onshore supporting activities also rests with the master, working through the administrative officer of his station.

The Department of Fisheries, the Hydrographic Service and the R.C.M.P. follow middle courses. In the Department of Fisheries, for example, control of all vessels is assigned initially to the four area directors (Maritime, New-

foundland, Central and Pacific) who delegate responsibility to the area heads of the Protection Branch and their marine supervisors. The larger vessels remain under the operational control of the area organization, together with the manning, husbanding and maintenance of all vessels. Operational control of smaller craft, however, is further delegated to local supervisors in the districts and sub-districts. The functions of departmental headquarters are thus restricted to general policy, control of new construction and major refits, and other matters requiring Treasury Board approval or involving the use of headquarters purchasing facilities.

The practice in the Hydrographic Service is somewhat similar, except that maintenance and refits are supervised by technical officers at Ottawa. One management practice peculiar to this agency must be commented on: the designation of the senior surveyor on each vessel as the "officer in charge". This means that the senior scientist is responsible not only for the direction of hydrographic activities but also for the management of the vessel. This runs counter to general marine practice. Apart from the general question of safety it is to be noted that, under present arrangements, a disproportionate amount of the hydrographer's time may be required for the supervision of ship operations at the expense of his scientific duties.

Patrol cutters of the R.C.M.P. are based at naval dockyards in Halifax and Esquimalt, with general management centred at the Halifax base. The Ottawa superintendent of the Marine Division and his engineer superintendent are concerned with policy and technical supervision, but operational control rests with the superintendents of the land divisions to which the vessels are attached. Husbanding and maintenance are directed by the senior Marine Division offices in Halifax and Esquimalt, following naval standards and drawing on the facilities of the naval dockyards.

Operational control of the naval auxiliary craft is exercised by the Queen's Harbour Master, a permanent naval officer, and the management of these vessels follows naval procedures and employs naval facilities.

Manning

Each civilian vessel of the federal government has a crew establishment approved by the Treasury Board. In addition, departments with larger fleets, such as the Department of Transport, carry permanent relief establishments.

All shipboard personnel, other than those of the R.C.M.P., are employed at ministerial discretion—the *Civil Service Act* has always specifically exempted such personnel. Initial employment can take place at any rank or class, and district personnel officers sometimes apply to local branches of the National

Employment Service for suitable staff. Existing practices tend to limit the source of trained personnel, particularly for officers with certificates of competency.

Recruiting is hampered by the lack of career opportunities. Under present circumstances, there is little or no incentive for a young man to join as a deck-hand with a view to pursuing seafaring as a career. He must serve at least thirty months sea time in initial on-the-job training before sitting for his first examination for an officer's certificate of competency—and then must qualify himself at his own expense and in his own time. Conditions are even more onerous for engineers, although the skills thus acquired have a much broader application in employment ashore.

There is thus little attraction for good recruits. At present, the average academic standing of entrants is about grade eight. At this level, the knowledge of mathematics is inadequate for training as either deck or engineer officers. With the expansion of waterborne operations of the government, the need for better qualified recruits and improved technical training is becoming acute. A survey of the future requirements of the Department of Transport alone discloses that, by 1965, over 175 additional certificated officers will be needed. The Department is considering the establishment of training schools for both deck and engineer personnel.

Career opportunities are also curtailed by the fragmentation of watercraft operations among departments. Under present arrangements many competent seamen are not eligible when new and better opportunities occur in departments other than their own. Departments having specialized marine operations contend that they require seafarers who have been trained to carry out the specific departmental tasks. This is supportable where limitations in the vessel's complement require hybrid crew members: part seaman, part specialist. Nonetheless, the safe and efficient operation of a vessel requires the services of skilled seamen, and on the larger watchkeeping vessels, seamanship becomes almost the sole test of fitness.

It is the view of your Commissioners that the efficiency of watercraft operations would be improved by establishing a career service for government seafarers, embracing at least all watchkeeping vessels, with professional methods and standards of recruitment, employment and training, and equal opportunities for advancement.

Husbanding

Husbanding refers to the housekeeping tasks involved in vessel operations, including catering, methods of acquiring consumable stores and conducting running maintenance. As in other aspects of government vessel operation, there

are differences in practice among departments, each having evolved procedures which it considers best suited to its particular needs.

In the naval auxiliary service and R.C.M.P., naval standards are followed and naval facilities employed. Among other civilian fleets, husbanding is generally decentralized, with standards, procedures and the acquisition of supplies left largely to the masters and the shore establishments under which they operate. As a result, there is little uniformity, and maintenance standards could, in many cases, be improved, particularly on vessels not under the control of professional seafarers.

The major exception to the rule of decentralized control is to be found in the Department of Transport. In this case, maintenance standards are prescribed and supervised by the central organization. Catering practices are supervised by departmental catering officers and the area's shore-steward. Chief stewards and senior cooks are given training, where possible, at naval catering schools. Consumable stores for other ship departments (deck and engine room) are purchased in bulk by departmental headquarters, on the basis of requisitions prepared annually by ships officers. This highly centralized purchasing results in delays and the accumulation of excessive inventories.

With each agency husbanding its own ships independently of all others (with the exception of the R.C.M.P.) costly duplication of docks and storerooms has been inevitable. In Victoria, for example, the regional Hydrographic Service base and the Department of Transport marine agency occupy separate buildings on a common dock, and both departments plan the expansion and renewal of these duplicate facilities, at substantial cost. Similarly, in Halifax, the Department of Transport is planning a major wharf expansion programme at the marine agency, although only a few miles away the Hydrographic Service is building extensive docks and shore installations for the husbanding of its vessels and equipment. The R.C.M.P. may soon be forced to acquire new facilities because of increasing naval needs at Halifax. Integration of shore establishments is overdue, and continuation of the present policy is pyramiding the already excessive husbanding costs. In Halifax, all civilian departments could be accommodated in the new facilities now under construction for the Hydrographic Service.

Repairs and Refits

The cost of repairs and refits is an important element in the cost of ship operations. Repairs comprise work which is urgently needed to keep a vessel in service; refits are planned overhauls, carried out annually as a general rule, and

are usually preceded by the preparation of a defect list by the master and chief engineer, in consultation with the marine supervisor, which serves as the basis of a specification for contracting.

Efficiency and economy in refits depend, in the first place, on the care with which specifications are prepared. Once a refit contract has been awarded, the cost of supplementary repairs (the need for which becomes evident only after a vessel is dry-docked or machinery is opened up for inspection) is hard to control. Bidders for refit work may therefore be tempted to pare their prices on the specified work in the expectation of recouping on supplementary repairs.

Given adequate specifications, proper control of repairs and refits requires effective contracting methods and competent technical supervision of the work. In addition, account must be taken of the secondary (but not insignificant) costs: distance from base to refit yard, costs of maintaining crews away from their home base, and time lost through unnecessary delays in returning the vessel to service.

Departmental practices in repairs and refits vary widely. Vessels of the R.C.M.P. and naval auxiliaries are looked after in naval repair establishments; when the latter are unable to do the work, it is put out to contract by the Shipbuilding Branch of the Department of Defence Production, and supervised by the Navy. Repairs and refits of Department of Transport vessels are the responsibility of its Shipbuilding Branch. The Department of Fisheries, the Fisheries Research Board and the Hydrographic Service rely for technical advice on the Board of Steamship Inspection; the first two also obtain help from the Shipbuilding Branch of the Department of Transport in the preparation of specifications; but specifications for the refit of hydrographic ships are prepared by their own staffs. All these departments and agencies place and supervise their own contracts.

Control over the time lost in refits is generally weak. Although tenders for government refit and repair contracts state the estimated time required for the work, these estimates are not enforced, and vessels are generally out of service for much longer periods. Refits of larger ships of the Marine Services in 1961 took as long as 90 days, with 50 days or more not uncommon. The refit of the *Sir Walter E. Foster*, for example, was estimated by the contractors to require 28 days, but actually took 50 days; moreover, although the *Foster* is based in Saint John, the contracts were awarded to Halifax firms which entailed a further loss of four days steaming between base and yards. There is insufficient recognition of the cost to the government of prolonged losses of service; stricter control of time spent in refit is needed.

Except in the Department of Transport, supervision of shipyard contracts for repairs and refits is generally left to the responsible ships officer. In the Depart-

ment of Transport, although the Operations Branch includes an engineer superintendent with a technical staff, the Shipbuilding Branch is responsible for the repairs. The Shipbuilding and Operations Branches co-operate but the denial of responsibility to the latter, especially to the ships officers to whom the standard of repair work is of special importance, is unsound. Moreover, the excessive centralization of management in the Marine Services includes repair and refit responsibilities which might more effectively be left with the field organization.

As in other aspects of management, better arrangements for interdepartmental co-operation in repairs and refits would yield savings. There is no clear justification for the employment of separate technical supervisory staffs in the Department of Fisheries, the Hydrographic Service and the R.C.M.P., in addition to the more than 100 technical experts employed by the Board of Steamship Inspection and the Shipbuilding Branch of the Department of Transport. It must also be noted that the Marine Services of the Department of Transport, unlike other operating agencies, use commercial surveyors to inspect and supervise their vessels rather than using its own Board of Steamship Inspection. It is contended that, as the Board is an integral part of the Marine Services, it would, in effect, be policing its own equipment. Against this must be set the unquestioned technical competence of the Board's staff, and the fact that it provides comparable services to other government departments and agencies.

Accounting and Cost Control

Operating accounts of government vessels follow the general pattern of government accounting: the same narrow concern with cash outlays, the same preoccupation with "objects of expenditure" such as wages and supplies, and the same neglect of the accounting needs of management. Direct cash outlays are recorded for each vessel, but capital and overhead charges are ignored, and little or no attempt is made to relate costs to work performed.

As a result, departmental administrators lack financial data necessary for the evaluation of performance in the waterborne operations for which they are responsible. It is scarcely surprising that, in these circumstances, administrators show little interest in the cost records which are available to them. The most detailed and precise cost records are maintained in the Navy and the R.C.M.P. (the latter using naval accounting procedures for the greater part), and supervisory staff in these two departments give far more attention to costs. Nowhere among departments, however, is there any cost accounting related to the actual functions of vessels. In the planning and administration of

programmes requiring watercraft—scientific research, ice-breaking, aids to navigation, etc.,—costs of vessel operations are not taken into account, despite the fact that, for some programmes, these exceeded all other costs of the programme.

A fresh approach is needed. For example, a lightship has been stationed for many years off the entrance to Halifax harbour. When this vessel comes to port for repairs, refueling and servicing, the station is marked by a lighted buoy, with no apparent dissatisfaction on the part of shipping traffic. Modern electronic aids to navigation appear to have made this traditional aid to navigation unnecessary. But only if the full costs of such a service are recorded—in this case an estimated \$535 daily—and weighed against its declining utility can there be any basis for determining whether the service should be continued or at what point it should be withdrawn or modified. Thus, effective control of watercraft operations, and of the programmes dependent on them, requires adoption of the budgeting and accounting methods recommended by your Commissioners in the report on *Financial Management*.

CONSOLIDATION OF WATERCRAFT MANAGEMENT

In this analysis of government waterborne operations, certain needs have become evident:

- Greater flexibility in the use of watercraft, particularly the larger, watchkeeping vessels, in order to achieve better utilization.
- Creation of a broader career service for seamen, providing more permanent employment, greater mobility, and better use of skills, and an effective training programme.
- Professionally supervised common standards of operation, husbanding and maintenance, and amalgamation of duplicate husbanding facilities.
- More effective use of technical staffs for the superintendence and inspection of vessel maintenance and repair.
- Better cost control and cost accounting practices.

To these may be added the need for continuous assessment, at a central point, of all government watercraft needs and facilities, to ensure that a proper balance is maintained between ownership and charter, and to foster the development of multipurpose vessels.

To the extent that the various waterborne activities of government can be consolidated, most of the foregoing needs could be met. As noted earlier, how-

ever, no general consolidation of these varied operations seems practical, although the Department of Transport has a clearly established pre-eminence, with direct responsibility for all activities involving the use of watercraft except those assigned to specialized agencies, or minor activities which are incidental to the work of other departments.

Short of a merging of waterborne functions, the necessary improvements in watercraft management identified above can best be achieved by a consolidation of vessel management and supporting services, with the Marine Services of the Department of Transport as the focal point. As an initial step, the ownership, manning, husbanding and maintenance of the watchkeeping vessels of all civil departments and agencies should be transferred to the Marine Services. Ownership and management of all R.C.M.P. patrol vessels should remain with the Force until such time as the entire Marine Division and coast guard service are merged. Naval auxiliaries must, as a general rule, remain under the full control of the Royal Canadian Navy, but consideration should be given to a transfer to the Marine Services of the five oceanographic vessels which do not directly support naval operations, either in peace or war.

Initially, other departments would retain first claim on vessels they surrender, notifying the Department of Transport periodically of their requirements. Accounts must be kept in a form which will permit proper allocation of full operating costs to the user departments. At all times when these vessels are not required by their former owners, it should be the responsibility of the Marine Services to seek the fullest and most economic utilization of all craft. Future acquisitions and replacements or conversions of watchkeeping vessels should be planned and undertaken by the Department of Transport in the light of total needs.

- We therefore recommend that:*
- 1 Consideration be given to a progressive consolidation of all large vessels and husbanding facilities under the Department of Transport.
 - 2 The Marine Services of the Department of Transport extend their training programme for seamen to all marine personnel from other departments and agencies on a cost-recovery basis.
 - 3 The Department of Transport become the source of technical advice and assistance required by Treasury Board and other departments relative to new ship

construction, the formulation of government-wide standards for vessel operation and management, and conditions of service and rates of pay for seafarers in the public service

- 4 All departments and agencies concerned with the maintenance of watercraft use the technical services of the Board of Steamship Inspection, particularly in the preparation of specifications for refits and in the supervision of shipyard repairs and refits.

6

THE OPERATION OF AIRCRAFT

Aircraft are less widely dispersed among federal departments and agencies than are auto vehicles or watercraft. Among civil departments there are, in fact, only two which own and operate aircraft: the Department of Transport and the Royal Canadian Mounted Police. In 1960-61, they owned and operated sixty-nine aircraft, including helicopters. (Two of the helicopters are actually the property of the Department of Mines and Technical Surveys, for use on the Canadian Government Ship *Baffin*, but are operated and maintained by the Department of Transport.) The capital investment in these aircraft, at original cost, is \$8.5 million. Recorded annual operating costs—which do not include any capital charges, overhead, hangar space, or certain maintenance costs—amounted in 1960-61 to about \$3 million. Included in this sum are the salaries of the 230 persons employed full-time on aircraft operations.

These aircraft operations of the civilian departments are overshadowed by those of the Air Transport Command of the Royal Canadian Air Force. This organization, operating almost 200 aircraft, and controlling an additional 88 flown by auxiliary squadrons of the R.C.A.F., employed 5,900 persons in 1960-61, and recorded operating costs, excluding pay and allowances, of \$17.1 million. Personnel costs for the Command exceed this figure by almost fifty per cent. Provision of air transportation in peacetime is a subordinate function of the Air Transport Command; as an operational command of the Air Force, its primary tasks are to meet the requirements of wartime and to support missions such as those to the Gaza Strip and the Congo. Its size, structure and operating methods are governed by these primary tasks.

These three air fleets in 1960-61 logged almost 86,000 flying hours, 56,500 by Air Transport Command, 20,000 by the Department of Transport, and 9,300 by the R.C.M.P. By way of comparison, Trans-Canada Air Lines in 1961 flew a total of 177,152 hours—using, for the greater part, much larger aircraft, while the Air Transport Command recorded more flying hours on overseas operations (23,040) than did Trans-Canada (19,471).

ELDORADO AVIATION LIMITED

One other aircraft operation was examined by the Commission: that of Eldorado Aviation Limited, a subsidiary of the Crown-owned company, Eldorado Mining and Refining Limited. This agency, operating two transport aircraft and a helicopter, with a total staff of 43, provides regular air services between Edmonton and the parent company's mining operations in Northern Saskatchewan and the Northwest Territories, as well as along the water route of a sister subsidiary, Northern Transportation Company Limited, to the Arctic Coast. Operations in 1960 cost \$872,000, including depreciation charges.

This small operation is efficiently managed and provides the services needed by its parent company more economically than they could be obtained otherwise. With the suspension of exploration by the mining company, retention of the helicopter no longer appears to be justified, and a minor saving might be made by eliminating a Link training section and using commercial facilities instead. Generally, the future of Eldorado Aviation is bound up with that of Eldorado Mining and Refining, which is reviewed in our report on *The "Make or Buy" Problem*.

DEPARTMENT OF TRANSPORT

The air operations of the Department of Transport in 1960 involved the use of thirty-seven fixed-wing aircraft and seventeen helicopters (including the two helicopters on the C.G.S. *Baffin*), the exclusive employment of 170 persons, and direct expenditure of over \$2 million.

Functions and Usage

The fixed-wing aircraft are used for the calibration of airway and airport radio navigation facilities, transportation of civil aviation inspectors and other departmental personnel, practice flying by inspectors, and the transportation of ministers, visiting Heads of State and other important missions from abroad. Calibration of radio aid facilities, which is the responsibility of regional civil aviation inspectors, is carried out largely by means of seven specially-equipped

DC-3 aircraft. Civil aviation inspectors use these and other aircraft for their own transportation and for flying practice to maintain their proficiency as licensed pilots. Transportation of distinguished persons is provided by headquarters aircraft, including two Viscounts, based in Ottawa.

Usage of these aircraft in 1960-61 is indicated by the figures shown in Table 3.

Table 3—DEPARTMENT OF TRANSPORT—OPERATION OF FIXED-WING AIRCRAFT

<i>Base</i>	<i>Number In Use</i>	<i>Average Hours Flying Time (per unit)</i>	<i>Over-all Average No. Days in Use (per unit)</i>
Vancouver	3	487	143
Edmonton	4	485	136
Winnipeg	5	453	129
Toronto	4	400	122
Ottawa	12	460	122
Montreal	5	496	145
Moncton	4	426	129
	—	—	—
	37	459	126
	—	—	—

In evaluating these rates, several factors must be considered. The average annual usage, in flying hours, is undoubtedly low in comparison with commercial operations; for example, the two transport aircraft of Eldorado Aviation Limited were flown 1,283 hours and 1,810 hours in 1960-61. However, aircraft of the Department of Transport are not used for regular scheduled services but "as and when required", which necessarily tends to reduce their flying time. Decentralization of operating control over most aircraft to the regions accentuates this tendency.

The utility of the flying actually done is difficult to assess. A significant number of hours are flown by civil aviation inspectors for the purpose of maintaining their flying proficiency and qualifying for flying allowances. Further flying time results from the centralization of repair at the Ottawa base, which is questioned below.

A reduction in the size of the fleet could be achieved through the replacement of older aircraft by newer types giving higher performance. For example, the calibration of radio aid facilities on which seven DC-3 aircraft and several regional Beechcraft are now used, could be done in less time and at lower cost by three modern aircraft operating from Moncton, Toronto and Edmonton, and flown by pilots employed solely for this work. For lack of complete cost data

on present operations, the need for such replacements cannot be measured accurately.

The fifteen helicopters owned by the Department are used primarily in conjunction with departmental icebreakers, to locate leads through icefields, to carry personnel, mail, supplies and equipment to and from the supply vessels, and to act as markers for surveyors. Because this work is seasonal, utilization rates are low, as reflected in the figures shown in Table 4 for 1960-61.

Table 4—DEPARTMENT OF TRANSPORT—OPERATION OF HELICOPTERS

Base	Number In Use	Average Hours Flying Time (per unit)	Over-all Average No. Days in Use (per unit)
Moncton	3	203	105
Ottawa	10	147	80
Vancouver	2	123	90
	—	—	—
	15	155	86
	—	—	—

Here again, lack of adequate data makes it impossible to measure operating costs, but it is unlikely that operations at these rates of usage are economic. As was noted in the preceding chapter on "The Operation of Watercraft", helicopters are being acquired to replace vessels in the supply of isolated marine services.

Control and Management

Responsibility for the control of departmental aircraft rests with the Controller of Civil Aviation. Under his direction, day-to-day operation and maintenance are the concern of the Superintendent of Flight Operations, who directs headquarters flying and maintenance and supervises operations at the six regional bases, where more direct control is exercised by the regional superintendents.

Although most flying of fixed-wing aircraft is done by civil aviation inspectors, the Department employs thirty-two professional pilots; eight fly headquarters aircraft, and the other twenty-four are helicopter pilots who also fly headquarters aircraft when not performing duties with the icebreakers. Besides flying duties, the pilots are used in the formulation of new civil aviation procedures and participate in accident investigations.

The Department employs 124 persons in the maintenance of its aircraft. Of these about 90 are experienced aircraft maintenance engineers. In addition to the servicing and running maintenance of aircraft and helicopters, this group

also includes, in Ottawa, an overhaul section to make engine changes, periodic air frame checks and major overhaul. During 1960-61 this headquarters group carried out fourteen major air frame overhauls and sixty engine changes on fixed-wing aircraft as well as engine changes and air frame overhauls on almost every helicopter owned by the Department.

The centralization of overhaul in the headquarters facilities of the Department is questioned. Aircraft must be brought considerable distances from their operating bases; other aircraft must be sent from Ottawa to the regions as temporary replacements. On the other hand, commercial overhaul facilities are available at or near all the regional bases and distribution of overhaul work among the commercial facilities would strengthen the aviation industry in Canada. It should also—although accurate cost comparisons cannot be made on the basis of existing departmental records—result in savings.

We therefore recommend that: Consideration be given to having major air frame overhaul work, currently done by Department of Transport facilities, distributed to commercial overhaul agencies.

Under present accounting practices, the operating costs of aircraft cannot be ascertained. Costs of fuel, materials and equipment are charged to the individual aircraft, but no provision is made for depreciation, overhead and hangarage. Labour and overhead costs are not charged for overhauls performed in departmental facilities; radio maintenance is provided by the Telecommunications Branch of the Department and all costs, including salaries, equipment and parts, are borne by that Branch. If management is to exercise effective control, cost accounting methods must be adopted which will provide accurate statements of the hourly operating costs for each aircraft.

ROYAL CANADIAN MOUNTED POLICE

The Air Division of the R.C.M.P. in 1960-61 operated seventeen aircraft, three of them based at Rockcliffe Airport in Ottawa, the others at thirteen bases throughout Canada. The capital cost of these aircraft was \$1.3 million, and operating costs were \$793,000. The Division employs 59 personnel.

The most important function of the Air Division is to provide transportation into hinterland areas for police investigations. Average usage in 1960-61 was 549 hours, spread over an average of 145 days in use. As in the case of the Department of Transport, the nature of the flying tasks tends to limit utilization rates. The record of the Division is generally satisfactory, with the exception of the aircraft at Frobisher which was flown only 361 hours in 1960-61—two-

thirds of this time on work for the Department of Northern Affairs and National Resources.

All air operations and maintenance are directed from divisional headquarters at Rockcliffe, flight control being exercised through Edmonton for western operations. Headquarters staff consists of twenty persons; air detachments in the field generally consist of one pilot who is a regular member of the Force, and an aircraft maintenance engineer who is a special constable. Pilots, who must first have had two years of police experience, qualify themselves initially by obtaining commercial licenses at their own expense; after appointment to the Air Division they are given extensive training in all aspects of the work. High standards of operation are maintained.

Maintenance facilities and central stores, which are provided at the R.C.M.P. Rockcliffe base, duplicate the more extensive facilities and stores of the Department of Transport at Ottawa Uplands airport. Although the transfer of the Air Division headquarters to Uplands may involve some severance from other elements of the R.C.M.P. headquarters, integration with the Department of Transport facilities would permit a reduction of personnel and stores. Headquarters pilots and maintenance personnel of the Force would also gain access to the superior training facilities of the Department.

We therefore recommend that: The Air Division headquarters of the R.C.M.P. be moved to the Department of Transport hangar at Ottawa Airport and its maintenance and stores sections be integrated with those of the Department.

THE CHARTER OF AIRCRAFT

In addition to their own flying operations, federal departments and agencies in 1960-61 chartered air services to the extent of \$5 million. The largest user was the Department of National Defence which placed contracts through the Department of Defence Production in the amount of \$2.3 million, principally on behalf of the Army Survey Establishment and the R.C.A.F. A large part of the latter requirement involved the hire by contract of crews to fly and maintain R.C.A.F.-owned helicopters used in support of the Mid-Canada Early Warning Line and Air Defence Communications System. The Department of Mines and Technical Surveys chartered aircraft and helicopters at a cost of \$1 million for the transportation and support of survey parties in Northern Canada. The Department of Transport spent over \$360,000 for the charter of aircraft for ice reconnaissance, and charter services, costing about \$200,000, were used by the Department of Northern Affairs and National Resources for forest protec-

tion, surveys and the transportation of school children. The foregoing figures do not include contracts for aerial photography by commercial firms, on which the Department of Mines and Technical Surveys spent \$1.5 million in 1960-61.

Each department independently makes charter arrangements and, although certain standard practices are prescribed by the Executive, procedures vary from one department to another. Aircraft charter negotiations require familiarity with flying operations and Air Transport Board regulations but the contracting sections are generally lacking in this expert knowledge. Consolidation of charter arrangements (apart from those required at short notice by medical and other authorities in isolated areas), using a single specialized contracting group, would produce better results.

AIR TRANSPORT COMMAND—R.C.A.F.

Major questions of government ownership *versus* use of commercial services are raised by the operations of the Air Transport Command. Special circumstances, however, make it impossible to treat these as simple "make or buy" questions.

Functions and Usage

The role of Air Transport Command is one of military operations, based on the needs to be faced by the Armed Forces at the outbreak of a general war or as a result of Canadian commitments in peacetime emergencies. In a major war, speed in moving forces to battle areas is considered to be of the utmost importance, and the "force in being" to which military strategists attach such primary importance must therefore be assured of the means of prompt deployment.

To meet these requirements, the Air Transport Command has approximately 200 aircraft, exclusive of those flown by auxiliary (part-time) squadrons. Fourteen different types are represented, ranging from long-range four-engined Yukon transports capable of carrying 135 passengers or 30,000 pounds non-stop for 4,000 miles, to single-engined Otters, able to operate for short ranges from semi-prepared short landing strips in support of army field operations. Numerically, much of the fleet consists of older aircraft, including World War II Lancasters used for Arctic reconnaissance, C-47 Dakotas, and North Stars. In recent years, however, the total capability of the Command has been greatly enhanced by the acquisition of more modern machines, including twelve Yukons, four of the capacious C-103B Hercules, ten medium range CC-109 Cosmopolitans (all these three types being powered by turbo-prop engines),

and seven twin-engined Caribou aircraft capable of operating from semi-prepared short landing strips.

The results of this modernization process can be seen from the record of recent operations shown in Table 5.

Table 5—AIR TRANSPORT COMMAND OPERATIONS

Fiscal Year	Total Hours Flown	Passenger Miles ('000)	Freight ton/miles ('000)
1959-60	52,982	98,935	10,266
1960-61	56,518	126,925	13,076
1961-62	58,121	125,006	18,014

From this it can be seen that with a ten per cent increase in flying time over the last two years, there has been an increase in load-carrying of approximately fifty per cent. Moreover, even the 1961-62 figures do not reflect the full impact of recent re-equipment programmes. With the coming into service of the full squadron of large Yukon transports, the long-range capacity of the Command has increased sharply, and the total carrying capacity of the Command may now rival that of Trans-Canada Air Lines.

Despite the growth of Air Transport Command operations in recent years, a number of airborne activities which were begun as Air Force operations have been turned over to civil operators, including air supply for the Mid-Canada and DEW Lines, and most aerial photography and survey. As a result, civil carriers are flying some 60,000 hours annually in Canada, either in support of defence projects or on tasks which were previously undertaken by R.C.A.F. aircraft.

Because the size and composition of the Command is based primarily on the estimate of emergency needs, peacetime utilization rates cannot be judged by the standards of civil operations. Apart from such relatively minor operational tasks as air-sea rescue, Arctic reconnaissance, and the support of United Nations forces in the Middle East and Africa; the peacetime functions do not determine but on the contrary are determined by the size and capabilities of this air fleet.

In this connection, the key factor lies in the need to develop and maintain the proficiency of the Command by passenger and cargo handling on a continuing basis in peacetime. Based on experience, the R.C.A.F. have concluded that, in order to maintain a satisfactory level of skill and readiness, aircraft must be

operated in peacetime at a minimum of fifty per cent of the emergency requirement. The peacetime flying programme has therefore been devised to satisfy this need. To some extent, this has been done by modifying the logistic patterns of the Services to exploit the airlift capacity—for example, by bringing defence equipment of the forces in Europe back to Canada for repair and overhaul instead of using European facilities. Inevitably, however, the Command becomes drawn into other operations—such as the ferrying of Service personnel to and from overseas posts under peacetime policies of rotational service—for which commercial carriers would otherwise be employed.

By government policy, the transportation services of the Air Transport Command are available, as a general rule, only to the Department of National Defence. Other departments must use commercial air services, except in cases of emergency or where commercial services are not available.

Exceptions are made to this general policy in the form of both chartered or special flights and carriage of supplies or personnel of civil departments on flights that are primarily intended to meet the needs of the Services. A limited number of charter flights are made for purposes such as aerial survey and photography, transportation of medical personnel and supplies, and on behalf of provincial governments to meet emergencies usually connected with floods or forest fires. Charges are made on the basis of flying-hour costs of the aircraft plus travelling expenses of the crew. Special flights are provided without charge for members of the Royal Family, the Governor General, ministers and distinguished visitors, or for Chiefs of Staff or their civilian equivalents. It would be appropriate to adopt the practice of having the user departments reimburse the R.C.A.F. or the Department of Transport for flights of this nature. When freight and passengers are carried by regular flights, on behalf of other departments, the latter are billed at the low rate of five cents per passenger mile or one cent a mile per hundredweight of freight. Most of this traffic is carried on flights serving the North. Total operations in 1960-61 are summarized in Table 6.

From this it will be seen that domestic flights accounted for 60 per cent of the flying time but only 45 per cent of the passenger miles and 40 per cent of the ton/miles—chiefly reflecting the larger capacity of aircraft used on overseas flights. Moreover, about 40 per cent of the hours flown, over 63 per cent of the passenger miles and 55 per cent of the ton/miles are attributable to scheduled flights, the proportions being in all cases higher on overseas traffic than on domestic. With the introduction of the Yukon transports to full squadron service, it is estimated that the Command will be able to airlift forty-five per cent of all the overseas traffic of the Department of National Defence—within the utilization target of one-half the full operational capacity.

Table 6—AIR TRANSPORT COMMAND 1960-61 OPERATIONS

	<i>Domestic</i>	<i>Overseas</i>	<i>Total</i>
Hours flown:			
Scheduled	8,010	14,797	22,807
Other	25,468	8,243	33,711
Total	33,478	23,040	56,518
Passenger miles ('000):			
Scheduled	32,462	48,013	80,475
Other	25,106	21,344	46,450
Total	57,568	69,357	126,925
Ton/miles of freight ('000):			
Scheduled	1,935	5,195	7,130
Other	3,215	2,731	5,946
Total	5,150	7,926	13,076

The Basic Problem

This large and growing volume of traffic and the high incidence of scheduled flying by the Air Transport Command probably are disturbing to commercial carriers, whether their interest be air, sea or land transportation. What is fundamental is the long-term policy decisions of the Executive, and these necessitate evaluations of military and economic factors. Your Commissioners' interest is limited by the terms of reference to the ways and means utilized to assemble the data required for decision-taking.

The size of the Air Transport Command obviously involves calculations of prospective military needs, the relative priority to be assigned to them and an assessment of the degree to which emergency demands may be met by conscripting civil air transport resources—a long established practice with respect to mercantile shipping.

From the economic viewpoint, it would seem that the expansion of the Air Transport Command has, in the past, been evaluated primarily by weighing the impact on the over-all military budget of the Department of National Defence. The direct operating cost is now great, at least \$50 million annually.

Moreover, as the facilities of the Air Transport Command increase, it becomes more and more a competitor of such public owned agencies as Trans-Canada Air Lines and, to lesser degree, the Canadian National Railways. Each of these is dependent on the resources of the Consolidated Revenue Fund when a year ends with a deficit.

The diversity of the elements to be taken into calculation is such that the future of the Air Transport Command should not be regarded as something to be settled by limiting consideration to military convenience or to budgetary allocations. The existing machinery and processes to marshal the data to be weighed in arriving at decisions should be strengthened and better balanced. Military and civil experts should both make contributions.

We therefore recommend that: The Department of Transport be more closely associated with the Department of National Defence and the Royal Canadian Air Force in the formulating of policy proposal relating to military transport.

8 TELECOMMUNICATIONS

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 8: TELECOMMUNICATIONS

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	215
1 THE TELECOMMUNICATIONS FUNCTION	217
Scope of the Inquiry	217
The Scale of Administrative Communications	218
Objectives of Telecommunications Policy	221
Changing Needs and Improved Technology	222
Service and Economy	223
Needs of National Development	225
Existing Control Procedures	225
2 GENERAL ADMINISTRATIVE COMMUNICATIONS	227
Telephones	227
Telegraph and Teletype	229
Conclusions	230
3 SPECIAL COMMUNICATIONS NEEDS AND SYSTEMS	233
Department of Transport	233
Department of National Defence	236
Air Defence Communications Systems	240
Royal Canadian Mounted Police	243
Canadian Broadcasting Corporation	244
External Telecommunications	245
Telecommunications in the North	246
Conclusions	248
4 CENTRAL DIRECTION AND CO-ORDINATION	251

ACKNOWLEDGEMENTS

A detailed investigation of telecommunications services was undertaken by a Project Group under the direction of James W. Simpson, *Leetham, Simpson Limited*, Montreal.

A number of project officers collaborated on the inquiry, and your Commissioners wish to acknowledge the assistance received from those mentioned below:

P. S. Aikman, B.Sc., *Leetham, Simpson Limited*, Montreal

R. W. D. Hanbidge, *Leetham, Simpson Limited*, Montreal

H. J. von Baeyer, Ph.D., P.Eng., *InterTel Consultants Ltd.*, Ottawa

Frank S. B. Thompson, B.Sc., P.Eng., on loan from *Department of National Defence*, Ottawa

A number of submissions bearing on this topic were received from individuals and organizations: these have been carefully considered and are noted in our final report.

Your Commissioners, in acknowledging the assistance and advice received from the above-named persons, dissociate them from any of the findings and conclusions contained in this report; for these, your Commissioners assume full responsibility.

1

THE TELECOMMUNICATIONS FUNCTION

Canada, because of its great area and its needs for the defence of long and remote frontiers, has a vital interest in the quality of its communications. The federal administration as the regulatory authority in this field, as the largest single user, and as a substantial owner of communications plant, is concerned with the adequacy and reliability of the modern electric and electronic systems on which the nation relies.

SCOPE OF THE INQUIRY

Your Commissioners' study of telecommunications as one of the major supporting services of federal activity has encompassed a review of current procedures and policies and of the economy and efficiency with which the needs of government are met. As in other inquiries of the Commission, operations of public undertakings of a commercial type have been excluded, notably the Canadian National Railways and Trans-Canada Air Lines. The two large publicly-owned common carriers, Canadian National Telegraphs and Canadian Overseas Telecommunication Corporation, were consulted in the course of the study, as were the major privately-owned systems, but their operations were not examined.

Subject to these exclusions, in 1961 the Government of Canada owned telecommunications facilities costing \$178 million and its annual expenditures for operation, maintenance and staff training exceeded \$116 million.

Much of this outlay, \$147 million of the capital investment and \$65 million

of annual operating expense, relates to the operational requirements, as distinct from the administrative needs, of the Armed Forces. These purely military telecommunications, designed to meet the stringent and rapidly changing demands of modern warfare, can only be judged on military grounds. Consequently, no attempt has been made to assess their management or effectiveness. Some operational systems, however,—especially the large networks used in continental air defence—have an impact on the general development of Canadian telecommunications resources and may therefore be relevant to the peaceful needs of the federal government and the country at large. This aspect has received consideration by your Commissioners.

THE SCALE OF ADMINISTRATIVE COMMUNICATIONS

In general, then, attention is directed to the telecommunications employed by the federal departments and agencies (with the exceptions noted) for its own administrative purposes, including the general administration of the Armed Forces. These comprise the large transmission systems of the Department of Transport for its meteorological, air traffic control and marine services; the military teletype networks spanning Canada, and their extensions to the United States, Europe and Australasia; the radio network of the R.C.M.P.; and the general administrative telecommunications used in government operations both within Canada and throughout the world.

A wide variety of systems and services is employed in meeting the administrative communications needs of the federal government:

- Telephones and inter-office communications.
- Telegraph and cable services, including private wire teletype, Telex (a commercial teletype subscriber service), and data transmission systems.
- Facsimile, telephoto and similar services for the transmission of pictorial reproductions.
- Transmission circuits for radio and television programmes, including closed circuit television.
- Radio link services, including fixed links, ship-to-shore, air-ground-air, and other mobile link systems.

The annual cost of administrative telecommunications was almost \$52 million in the fiscal year ending in 1961, and the investment in telecommunications equipment, at original cost, amounted to over \$30 million. Almost half the

annual cost—\$25 million—represented payments to the communications industry for services and rentals of lines and equipment; the balance was spent principally on salaries and wages of public servants engaged in operating and maintaining the systems or involved (chiefly in the Armed Forces) in communications training.

About 5200 persons, including members of the Armed Forces, are employed full-time in the operation and maintenance of these administrative communications. Over sixty per cent are employed by the Armed Forces—about 3200, including a significant training component. About 1400 are in the Department of Transport and, of the remaining 600-odd, three-quarters are to be found in three organizations: the Royal Canadian Mounted Police, the Department of External Affairs and the Canadian Broadcasting Corporation. With few exceptions, other departments and agencies rely almost entirely on the facilities and personnel of the commercial carriers.

Considerable diversity is found in the methods adopted by individual departments to obtain the communication services they require. The needs of many offices of the government differ in no way from those of the general public, and are met simply by employing commercial telephone and telegraph service. On the other hand, special operating needs of a number of departments call for systems that are essentially unrelated to the telecommunications available commercially, which must therefore be built and operated by the government. Among the systems included in this study, four different patterns were identified:

- Using the publicly available services of the commercial carrier companies.
- Leasing facilities from commercial carriers and operating them with government personnel—where the volume of traffic is large enough or can be built up by pooling requirements.
- Owning part of the facilities (usually terminal equipment and radio support), leasing others (such as transmission lines and circuits), and operating both with government personnel.
- Owning and operating all facilities—generally radio.

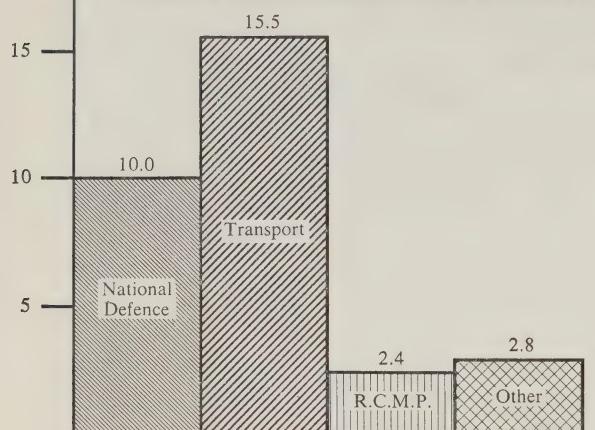
Among the large air defence systems of communication a further variant is to be found: facilities owned by the government but staffed for the Armed Forces, under contract, by private firms.

The method adopted to meet any specific need has an obvious effect on both the capital outlay and the number of people needed for manning and maintenance. Thus the two departments—National Defence and Transport—that

Chart 1—GOVERNMENT OF CANADA ADMINISTRATIVE TELECOMMUNICATIONS—1961

Millions

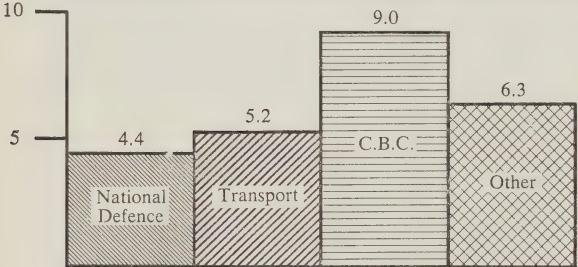
CAPITAL INVESTMENT—AT ORIGINAL COST



Annual Costs
\$51.8 Million

Millions

ANNUAL COST OF COMMERCIAL SERVICES

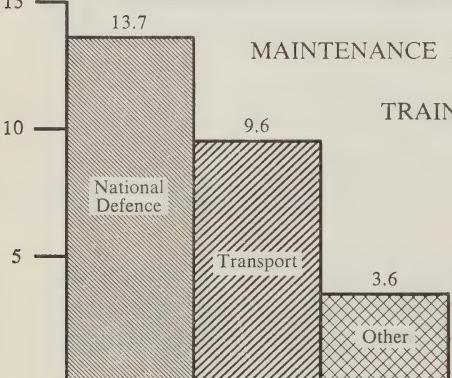


Capital
Investment
\$30.7 Million

Millions

ANNUAL COST OF OPERATION,
MAINTENANCE AND

TRAINING



Operation
Maintenance
and
Training

make the greatest use of the third and fourth methods mentioned above, account for more than eighty per cent of both the capital investment and of the operating staff of the systems. On the other hand, the Canadian Broadcasting Corporation, which relies heavily on the first two methods, has no investment in communications equipment (other than its broadcasting facilities) and employs a small percentage of the total communications staff in the public service. Yet rentals paid by the C.B.C. account for forty per cent of the total payments to commercial carriers, almost as much as the combined payments of the Departments of National Defence and Transport.

OBJECTIVES OF TELECOMMUNICATIONS POLICY

In the broadest sense, communications serve as the nervous system of an organization—conveying the information to centres where it can be assembled, analyzed and made the basis of decisions, and conveying decisions to points where action must be taken. Effective communications are vital to the administration of an organization, in a sense unmatched by any other supporting service. An organization may be wasteful or niggardly in its construction, accommodation and purchasing services, or in moving its people and goods, and still be reasonably successful in carrying out its essential functions. Not so, however, the organization which cannot count on a proper flow of information and decisions.

The important tests of a telecommunications system are its speed, reliability, coverage and security. In addition, the constantly changing pattern of the user's administrative needs and even more rapid changes in technology demand a high degree of adaptability in any system.

The electrical impulse and radio wave which are the basis of telecommunications provide the ultimate in speed—186,000 miles a second. Nonetheless, the advantage of this can be all-too-easily nullified by faulty organization and clumsy administration of a communications system, or by the use of inadequate terminal and switching equipment—just as transatlantic air travel would be of little value if passengers had to proceed inland by horse and buggy. In short, a telecommunications system must be planned at each stage from the originator of a message to its ultimate recipient. Messages must reach transmitters and be delivered from receiving stations with a minimum of delay. Systems should not become so overloaded that messages must queue for hours awaiting their turn for transmittal. The number of times a message must be switched from one circuit to another and the time required for switching must be minimized.

The necessity for speed is equalled by the need for reliability. In part, this

is a matter of technical quality—of good equipment, well maintained. In part, too, it relates to the suitability of the choice of system. For transmission over long distances, land lines, cables and microwave systems are generally more reliable than radio, and among radio systems one type will be more reliable than others for a particular purpose. In some circumstances—northern communications, for example—a high degree of reliability may be excessively costly, but each sacrifice in service must be weighed carefully against the saving in cost. In other circumstances, the importance of reliability may warrant, almost regardless of cost, not only the adoption of the most reliable means of transmission, but also the provision of alternative and “back-up” circuits of radio links.

The third test of effectiveness is the completeness of the service given by a system: its ability to provide, either within itself or by connections with other systems, rapid and reliable communications meeting *all* the needs of the operation it serves. Perfection of coverage is seldom, if ever, achieved in any system. But every gap in coverage, and every closed system leading a hermit existence without outside links, should be viewed askance.

The need for security of communications is of special, though not unique, concern to government. The ideal system from this viewpoint—fully shielded and proof against tampering—is probably impractical, if not impossible to achieve. But security may be unnecessarily jeopardized by the use of inappropriate methods of transmission, especially radio systems; by inadequacies in cypher equipment; or by dependence on communications systems over which the government has little or no control and within which little heed is paid to security.

CHANGING NEEDS AND IMPROVED TECHNOLOGY

The pace of technological advance in telecommunications within the past twenty-five years has been staggering. Not only has it produced an array of new and superior systems and equipment, rendering obsolete much of the earlier plant, but the extent of improvement in the service rendered, in terms of speedier and more reliable transmission at lower cost, has in itself stimulated a broad change in the nature and volume of demand.

Under static circumstances, telecommunications might be expected to adjust themselves gradually to produce maximum effectiveness, with little or no co-ordination of planning and direction. But in today's fluid situation, the communication services of the government must, so to speak, run in order to keep up with changing needs and techniques that will achieve reasonable efficiency and minimize chances of malfunction in emergencies.

Developments which currently impose new demands on government telecommunications include the following:

- Increasing population and the widening range of government activities, causing continuous growth of general administrative communications needs.
- Widening international involvements.
- Increasing resort to integrated and automatic data processing, requiring reliable data transmission networks.
- Accelerating development of the North, demanding increased coverage and capacity in northern networks.
- Increasing speed of aircraft, necessitating corresponding acceleration in communications for air traffic control.
- Increasing density of air traffic, requiring more complex and more extensive air traffic control systems near airports.

These new and growing demands may be met largely through continuously improving techniques of which the following are the most significant:

- Rapidly expanding commercial carrier networks, increasing in range, coverage and capacity.
- New equipment and techniques of telecommunication which enhance the speed, reliability and flexibility of services, ranging from new subscriber sets and switchboards to improved long-range radio operations.
- Prospective techniques based on earth satellites, extending the range and capacity of communications systems throughout the world.

Under these conditions of rapid change, a major user such as the government can ill afford a static or indifferent attitude towards its telecommunications systems. Planning must keep well ahead of events. The needs of future operations must be carefully assessed. The best possible advice on future techniques must be sought. Failing such an approach, the government is likely to find itself burdened with telecommunications systems which are costly anachronisms—more monumental than efficient—limiting the effectiveness of government and of its service to the public.

SERVICE AND ECONOMY

Because of the variety of equipment and methods of transmission available today, selection of the suitable telecommunications system for any particular

task is a matter of judgment. In most cases the ideal system will be priced beyond reason while the least expensive will be unacceptable on grounds of service. This element of choice or compromise enters into decisions with respect to both simple and complex communications requirements.

The need for sound judgment in this area is evident. While waste and extravagance are to be avoided, special care must be taken to guard against false economies. In the programmes most heavily dependent on telecommunications—defence and air traffic control—public safety is at stake. In other programmes, the effect of weak communications may be less drastic but not unimportant in terms of the quality of performance.

Compromise in choice of method and equipment are usually capable of assessment, in broad terms, by measuring monetary savings against sacrifices in effectiveness. But a more negative type of economy, represented by overloaded systems, understaffing, obsolete equipment, gaps in coverage, closed systems, and so forth, almost defies precise evaluation. The more obvious consequences, lost staff time for example, may be assessable but these will usually be small compared with the incalculable damage done to the quality of government operations.

There are, however, significant economies to be achieved in ways which do not diminish the effectiveness of communications—and may even enhance it. As in other activities requiring large amounts of capital, there are significant economies of scale to be achieved in communications. In general, a system which embraces a large number of users and a high volume of traffic can provide service at relatively low cost. It follows, therefore, that a primary economic aim of communications planning is to encompass as many users and obtain as much traffic as possible.

Savings of scale can be obtained not only where the government builds and operates its own systems but also where it uses the established facilities of commercial carriers. Where traffic warrants, leased lines offer important savings. Moreover, substantial economies are possible under new kinds of special rates for large-volume users of the long-distance telephone, teletype and data transmission services of the commercial carriers.

For the Government of Canada, because of the size of the country and the limited traffic generated by most programmes, the economies of scale depend largely on the development of integrated systems which serve a variety of purposes. The single-purpose system—duplicating routes and services of other systems—is probably the greatest enemy of economy.

Moreover, with proper planning designed to extend the coverage provided, the integration of communications services will not only reduce costs but also enhance the value of the system to its users. And as the economies of scale are

realized, it becomes increasingly permissible to employ more advanced—but more costly—techniques to improve speed and reliability.

NEEDS OF NATIONAL DEVELOPMENT

Finally, adaptability of systems and density of traffic—and the related economies—are most likely to be achieved, as a rule, by merging the telecommunications needs of the government with those of the general public. Consequently, in deciding on its telecommunications services the government must relate its requirements to those of the country at large.

This need is reinforced by the fact that the concern of the government with communications goes well beyond its interests as a user and operator. Under the constitution, it is responsible for the regulation of national communications in the public interest, and for defining and defending the interests of Canada in international telecommunications. More generally, it cannot ignore the social and economic importance of telecommunications in the life of the country. Consequently, in planning to meet its own communications needs, the government must consider not only the effectiveness and relative cost of alternative solutions but also their impact on the development of the general communications resources of Canada.

EXISTING CONTROL PROCEDURES

With a few exceptions to be referred to later, each department and agency of government has been left to devise its own ways of meeting its needs for telecommunications. Although some interdepartmental arrangements of a voluntary nature exist, it is generally true that the planning, provision, operation and maintenance of services and facilities are carried out independently by departments and agencies.

The only element of central control or co-ordination is that exercised by the Treasury Board and its staff. In essence, this is a control on spending, reflecting the fact that the Treasury Board is, for all practical purposes, the finance committee of the Cabinet. The principal instrument of control is the Government Contracts Regulations, prepared under the direction of the Board and sanctioned by Order in Council. These regulations, binding on all departments and the ten agencies classed as departmental corporations, prescribe the limits of departmental authority to purchase telecommunications equipment and services and require that all proposed expenditures in excess of such limits be submitted to the Treasury Board for specific approval.

Departmental authority for the purchase of communications equipment is

limited to \$15,000, or \$25,000 if competitive tenders have been obtained and the lowest tender accepted; for defence purchases, under the Defence Production Act, these limits are raised to \$25,000 and \$50,000. A variety of limits apply to departmental contracts for rentals and services, with different rules applying in Ottawa and the field. All proposals in excess of these limits must be submitted to the Treasury Board.

In the result, the authority of departments is narrowly circumscribed. While they are solely responsible for planning, as for operation and maintenance, the financial control of the Treasury Board, which exists to check extravagance, is basically a negative rather than a constructive influence on the development of their facilities.

2

GENERAL ADMINISTRATIVE COMMUNICATIONS

The communications needs of the Government of Canada encompass the broadest range of systems, equipment and operating techniques. Many of these needs may be supplied by commercial carriers using conventional equipment, and in the view of your Commissioners the services and facilities of such carriers should be used wherever possible. Moreover, in the selection of most suitable equipment, switching arrangements and other aspects of use of conventional communications systems, the expert technical services of the commercial carriers should be fully utilized in the interests of efficiency and economy.

This chapter reviews existing arrangements for the general administrative communications of departments and agencies, which employ almost exclusively the facilities of the public carriers. More specialized systems to meet specific needs of an unusual nature are described in a subsequent chapter.

TELEPHONES

There are several important exceptions to the general lack of integration of communications operations throughout the government. In the telephone field, the Government Telephone Service Office, which forms part of the staff of the Treasury Board, operates central telephone switchboards for federal offices in Ottawa, Toronto and Edmonton. All equipment is leased and in Toronto and Edmonton is operated by civil servants, but in Ottawa operators are provided

by the Bell Telephone Company. In addition, leased circuits from Ottawa to Toronto and Montreal provide private line service available to the more senior civil servants. Costs are apportioned in Toronto and Edmonton, but in Ottawa they are absorbed by the Department of Finance; long-distance calls are charged to users.

The Government Telephone Service Office, in addition to the operating function, exercises strict control over the use of equipment and the quality of service made available within departments and agencies. Because of its origin as a check on extravagance, its principal concern has been with cost rather than quality of service. But cost has been viewed as consisting only of the charges of the telephone company; inconvenience and loss of time through inadequate service have not been taken into account.

As a result, in the offices controlled by the Telephone Service Office, existing standards of equipment and service are seriously deficient. Telephones are of the simplest possible type and no proper use has been made of the wide variety of switching, signalling and holding devices which are available to provide convenient and flexible telephone service. Telephones are often shared by a number of persons and allocation standards are based on rank and arbitrary rules, rather than an assessment of need. Instead of regarding the telephone as an efficient tool to be placed in the hands of the worker who needs it, it is still in government circles regarded somewhat as a slightly extravagant status symbol —the sort of attitude which would award the shovel to the foreman and leave the labourers to dig with their hands.

Throughout the rest of Canada, the telephone service of the federal departments and agencies is generally unco-ordinated. In some cases, this has enabled individual agencies or offices to obtain standards of service more appropriate to their needs, and to take better advantage of the facilities offered by telephone companies. Generally, however, field operations have suffered, in common with headquarters establishments, from the lack of central planning and technical advice. In addition, the lack of co-ordination in the field has caused a wasteful duplication of facilities. Within a single government building, offices of different departments, or even of different branches within a single department, may have separate switchboards, each with its own operators, unconnected except through the general telephone system. In one building, where federal offices operated thirteen separate switchboards, consolidation was achieved on the initiative of one of the departments concerned, but local initiative of this sort appears to be exceptional.

To offset the defects of these limitations of equipment and service, departments have resorted to a variety of inter-office telephone and signalling systems which provide partial remedies. In spite of this, widespread dissatisfaction with

the service exists, both within the public service and among those who do business with the government.

The operations of the Telephone Service Office in the long-distance field are limited to the private line service, Ottawa-Montreal-Toronto, previously mentioned. While economical in concept, the utilization standards may be inappropriate. Waiting times on these lines are generally so great that urgent calls are commonly placed through the long distance services of the telephone company.

Other long-distance traffic of the government throughout Canada and abroad is not centrally administered and each department is billed individually by the telephone companies. In the existing atmosphere in which telephone costs are viewed, it is not surprising that there is no present intention of permitting departments to take advantage of Direct Distance Dialling—a new time-saving service coming into general use. Without it and in the absence of co-ordination of government long-distance service, it will not be possible to benefit from the substantial rate reductions becoming available under such developments as Wide Area Telephone Service—a flat rate long-distance service for large volume users.

TELEGRAPH AND TELETYPE

Co-ordination in the planning and operation of other telecommunications services depends almost entirely on the initiative of individual departments. As a consequence, most departments rely principally on commercial telegraph or teletype service. A few departments and agencies, however, subscribe to Telex, where the volume of traffic between headquarters and field offices or among field offices is sufficient to warrant the costs of installing and operating the machines. Two of these make their Telex available to certain other departments—the Department of Public Works to Central Mortgage and Housing Corporation, and the Department of Defence Production to about fifteen other departments and agencies—and are reimbursed for this service.

The communications centre of the Department of Defence Production offers the nearest approach to a general domestic teletype service for the civilian departments and agencies. In addition to its Telex service, it has leased teletype lines between Ottawa, Toronto, Montreal and Washington, teletype circuits to the Ottawa offices of the commercial telegraph companies, and a teletype circuit to the R.C.A.F. communications unit in Ottawa, which provides access to the systems of the three Armed Forces. Messages sent by or addressed to other departments and agencies are accepted and delivered by telephone. Costs appear to be reasonable and the service acceptable to its users.

The Defence Production system is an accidental growth, based on the system developed during World War II to meet the needs of the Department of Munitions and Supply. For some purposes it may be more than adequate: the Department is considering whether the leased circuit to Toronto might not well be replaced by Telex, and the services to Montreal and Washington might also be provided more economically by using Telex and National Defence facilities. The centre is not designed to meet the total needs of the government, and, in fact, no effort has been made to determine what those needs might be or how they might best be met. If this were done, the existing message centre would undoubtedly require reorganization and re-equipping to meet the need.

A basic weakness of existing systems, including some special purpose systems, is that they have developed almost solely in response to the needs of headquarters areas. As matters now stand, field offices enjoy teletype service to their headquarters and among themselves, only where the volume of traffic generated within the individual department or agency will support such an arrangement. While most field establishments of the federal public service use commercial telegraph service, at standard rates, the R.C.M.P. provides Telex service between headquarters and thirty-one of its field offices; the Employment Insurance Commission in 1961 installed Telex for thirty of its regional offices, with links to the local teletype networks embracing its seven Montreal and four Toronto offices; and the Armed Forces provide teletype service to their establishments throughout the country. In fact, however, the effectiveness and economy of telecommunications service in the field can only be improved if greater attention is given to the field organization of federal departments generally, including the provision of other services for which they have common needs.

CONCLUSIONS

Unfortunately, the present approach to general administrative telecommunications fails to recognize their role and importance in public administration. It appears to assume, quite wrongly, that by exercising a veto power over contract proposals, central authority can curb extravagance and ensure that services are economical. It fails to recognize that integration of telephone service in the headquarters area, undertaken as a measure of cost-control, has not succeeded in providing adequate standards of service for the conduct of the nation's business. Finally, it overlooks completely the opportunities for improved service and actual savings in pooling and integrating telephone and wire services throughout the field organization. This approach is damaging to the public purse and to the efficiency of federal administration alike.

To overcome these deficiencies, your Commissioners believe that a single co-ordinating agency must be created with responsibility to assist departments in achieving suitable standards of communications performance, eliminating duplication of facilities and initiating such integration and pooling of services as will promote the realization of the important economies which are possible. In view of the fact that in this area of general administrative communications, the needed facilities are all available from commercial carriers, the proposed agency should not require engineering or design staff but, rather, should look to the carriers for advice and guidance on all technical aspects.

It must be emphasized that the creation of this common service agency will not relieve the user departments of their primary responsibility for the adequacy and efficient use of their administrative telecommunications. This is an inseparable part of their general responsibility for the successful management of the programmes which those communications support. The user department must define its needs for supporting services. The co-ordinating agency can indicate the alternative services available to meet these needs, and the cost of each, but only the user department can weigh service against cost and determine where the balance should be struck between the two. In addition, it remains part of the task of departmental management to ensure that telecommunications are used sensibly and efficiently—that the more costly modes are not used extravagantly, that a proper scale of priorities is applied and that satisfactory standards of message writing are observed. Departments may look to the co-ordinating agency for guidance on such matters, but cannot evade the responsibility. To bring these responsibilities home to the departments—and to ensure that the full cost of departmental programmes is disclosed—the cost of common service telecommunications must be allocated, as accurately as may be practical, among the users.

Because of the flexibility inherent in commercial services, the proposed agency need not have direct operating responsibility for all elements of the common service systems—the existing Telex services of the U.I.C. and R.C.M.P., for example, need not be affected—but its planning of country-wide telecommunications services must take account of all such special arrangements. Subject to over-all budgetary authority, it should be responsible for all negotiations with carriers, including the leasing of circuits (and its costs should be apportioned among the user departments and agencies in an equitable manner).

The success of the proposed agency's operations is not to be judged by monetary standards alone, nor should it be regarded, as has been the Telephone Service Office which it will absorb, as having as its main purpose the control of costs. The needs of individual users should be sympathetically and expertly

considered and the primary objective of the agency should be the provision of standards of service appropriate to the need.

The general telephone, teletype and data transmission needs of departmental field offices across Canada require planning and co-ordination on two levels: national and local. For this reason, the agency responsible for the general administration of such services must itself have an extensive field organization and a knowledge, in considerable detail, of the distribution of the offices of the federal public service throughout the country. Among the existing departments of government, the one best able to assume responsibility for the planning and administration of these general services is the Department of Public Works, both because of the extent of its field organization and because of the natural relationship between such telecommunication services and the planning and administration of accommodation for the field establishments of the government.

We therefore recommend that:

- 1 An Administrative Telecommunications Agency be established in the Department of Public Works to co-ordinate the needs of departments and agencies for general administrative communication; to provide proper systems for telephone, telegraph and teletype transmission of government messages through arrangements with commercial carriers and to make the same available to departments throughout Canada on an individual or collective basis, as may be appropriate.
- 2 The costs of such services be apportioned among the departments and agencies on an equitable basis.

3

SPECIAL COMMUNICATIONS

NEEDS AND SYSTEMS

DEPARTMENT OF TRANSPORT

Among the civilian departments and agencies of the federal government, the Department of Transport makes by far the greatest use of specialized telecommunications. Throughout Canada it operates extensive networks to carry the heavy teletype, telephone and facsimile traffic essential to its civil aviation, marine and meteorological services. Together with its general administrative telecommunications, these systems represent a capital investment in equipment (at cost) of about \$15.5 million, and give rise to annual operating and maintenance charges of about \$14.8 million (including the Department's share of the cost of the Ottawa telephone service).

The principal systems operated by the Department of Transport include the following:

- *Air Operations Fixed Network:* A country-wide system of teletype and radio, linking all Canadian establishments concerned with the controlling of aircraft. These include: the Ottawa and regional headquarters of the Department, Air Traffic Control Centres, civil and some military airports, radio ranges, and over thirty departmental radio stations mainly in the North. Branches of the network extend to Iceland, Greenland, Ireland, the United Kingdom and a number of points in the United States. A general purpose system, it carries domestic aviation communications such as flight plans, notices to airmen and technicians, aircraft messages, and private traffic for commercial airlines and private aircraft operators on a cost-recovery basis; it handles international airways traffic, to meet Canada's commit-

ment to the International Civil Aviation Organization; and it also serves the needs of departmental administration. (*see Appendix 1*)

- *Air Traffic Control Interphone:* A telephone network linking air traffic control positions (control towers, R.C.A.F. operations centres, etc.) to provide a fast exchange of domestic flight information. Associated with it is an Air Movement Information Service, essentially a parallel system to keep R.C.A.F. and U.S.A.F. air defence centres advised of the movement of civilian aircraft. (*see Appendix 2*)
- *Air-Ground-Air Systems:* Three systems for communication between aircraft and ground control points. One system, using remote controlled transmitters linked by landlines to the regional air traffic control centres, enables the latter to control flying on the main airways. A second system, based on control towers, radio ranges and departure and arrival control centres, provides for the control of aircraft in the vicinity of airports. The third system provides at selected locations throughout the country long-range communications with aircraft and is available to airlines for general information and passenger traffic.
- *Meteorological Systems:* For the rapid gathering and dissemination of information about weather conditions. Included are a teletype system linking major meteorological centres with connections to the United Kingdom and United States, a broader network feeding into the major centres, and a facsimile system for transmitting weather maps by landlines and radio from the central forecasting and mapping office to major departmental stations throughout the country. (*see Appendices 3 and 4*)
- *Marine Systems:* A variety of systems providing teletype, telephone and radio services throughout the country for departmental marine stations on the coasts and Great Lakes, and for ships and private agencies concerned with shipping. (*see Appendix 5*)

In addition, the Department of Transport operates about fifty large vessels and over forty aircraft (including helicopters) with a wide range of communications equipment.

These systems are managed by the Telecommunications and Electronics Branch of the Department of Transport. As a consequence of this centralization under the Assistant Deputy Minister for Air Services, the various needs of the Department are being met with little or no duplication of effort and facilities are integrated where circumstances permit. The Air Operations Fixed Network, for example, is used in greater or lesser degree by all branches of

the Department and its radio facilities, especially in the North, are used to extend the coverage of the Meteorological Systems. Some marine traffic is also carried on this network and other marine needs are met through long-distance Air-Ground-Air radio centres in the North.

Co-ordination of these systems with those of the Armed Forces is also reasonably good. The Air Operations Fixed Network, Air Traffic Control Interphone and Meteorological Systems reach R.C.A.F. airfields. The meteorological circuit on the transatlantic cable to the United Kingdom is available to the R.C.A.F. during four half-hour periods daily. The paralleling of the Air Traffic Control Interphone and Air Movements Information Service, appearances to the contrary, involves no unnecessary duplication: the former system is too heavily loaded to carry the traffic of the latter, and speed is essential in meeting both needs—for flight safety in the first case and for rapid identification of aircraft in the Air Defence Systems in the other. A slight duplication of shore-to-ship facilities exists between the Department and the Royal Canadian Navy, reflecting their respective peacetime and wartime responsibilities, but, to a significant extent, R.C.N. facilities are used by the civilian agency.

The centralization of management of these varied systems in a single Branch has had the further advantage that technical aspects of departmental communications, as a general rule, receive adequate attention. Message format and procedures have been well standardized and conform, where appropriate, to commercial, military and international procedures. Operating and maintenance standards are high.

In the organization of the Telecommunications and Electronics Branch the work seems overly fragmented among staff groups at headquarters and similar staffs found in each of the six regional headquarters which carry the day-to-day burden of operations. This results in some overstaffing, and excessive absorption of technical personnel in co-ordinating and administrative work.

The most serious criticism, however, relates to forward planning and modernization. Although the systems are generally adequate to current needs, much of the equipment is old, in some instances obsolete, and some circuitry is primitive. The Telecommunications Branch relies heavily on other branches of the Department for the definition of future needs and it is clear that both these and the technology of communications are changing rapidly. For the air traffic control and meteorological services, present systems seem certain to be superseded in the near future by radically different techniques, involving a high degree of automation based on computers and requiring new kinds of networks for data transmission. The coverage provided by existing facilities has been rendered inadequate by the changing patterns and increasing speed and density of air traffic. Because the Air Traffic Control Interphone system,

for example, is limited to the areas served by commercial carriers, there are serious gaps in the coverage provided, particularly in the North. For the same reason, there are wide gaps in direct radio communication between regional air traffic controllers and aircraft in flight, which are increasingly serious in areas of high traffic density, such as the air space between Goose Bay and Seven Islands.

Departmental officers are generally aware of these weaknesses but remedies are slow in coming. This is partly due to organizational weaknesses of the Branch, but the greater cause seems to be the financial procedures of the government. Forward planning in the past has been inhibited by the government's general practice of considering financial plans on only a year-to-year basis. However, there are signs of growing interest in longer-range planning and it is to be hoped that more serious efforts will be made by the Department to forecast future needs and develop better plans for modernization—as the Meteorological Branch in particular is now trying to do.

In several important respects, the policies of this Department facilitate the development and adaptation of telecommunications systems as a whole. Although it has a sizeable investment in equipment—especially radio facilities—it relies heavily on circuits and equipment leased from the commercial carriers and actively encourages the latter to extend their systems into new areas of the country. As such extensions occur, the department is able to improve its services, both by extending the coverage and by replacing radio links with more reliable methods of transmission based on leased facilities.

DEPARTMENT OF NATIONAL DEFENCE

Within the Armed Forces, each of the three Services is responsible for the planning, provision and control of its own telecommunications. Because of the crucial importance of good communications to the operational tasks of the services, this policy is understandable, even though not altogether commendable. As a consequence, there has been relatively little integration of systems developed by the three Services to meet common or related needs, in particular, administrative communications.

At one time an integrated system was tried. In 1950, a Tri-Service joint relay system was organized, with each Service participating to operate one or more relay centres. In 1955, however, as a result of the inability of the three Services to work on this basis, the arrangement was abandoned and each Service established its own network. The weakness of this Tri-Service attempt lay in the lack of a single controlling authority, necessitating "troika" rule with all its disadvantages.

Since 1955, integration of the Armed Forces' requirements and technical programmes has depended on the largely ineffective machinery of a Tri-Service committee—the Joint Telecommunications Committee, with nine sub-committees. Each Service is required to refer its plans and technical programmes to the Committee only when it considers them susceptible of integration; and since the committee is composed entirely of representatives of the three Services, it possesses a traditional inherent bias against integration.

The principal communications systems used for general administration, carrying operational traffic as well, are the teletype networks operated by each of the three Armed Services. Each has a country-wide network, with overseas extensions by radio. All networks are based on the same technique of collecting traffic from a number of tributaries in manually operated relay centres, the latter being connected by leased lines, backed up in each case by radio facilities. Connections between the systems permit interchange of traffic.

The Strategic Communications System of the Royal Canadian Navy (*see Appendix 6*) extends from New Zealand across Canada to the United Kingdom, with major relay centres in Halifax, Ottawa and Esquimalt and a minor relay centre in Hamilton. The system links all Naval establishments, with branches to the United States Navy, Canadian Army, Royal Canadian Air Force and Department of Transport, and shore stations for communication with ships.

The Canadian Army Signal System (*see Appendix 7*) extends across Canada with a radio extension to the United Kingdom and branch networks in Europe. Following the designation of the Signal Corps to develop and operate a country-wide emergency communications system joining federal and provincial emergency government headquarters, it was decided to modify the present signal system for this purpose.

The Main Communications Relay Network of the Royal Canadian Air Force (*see Appendix 8*) provides a third country-wide teletype system with connections to the United States and Europe, as well as a terminal station in Australia. A European extension is provided by the communications system of the Air Division, a mixed system of leased land lines and R.C.A.F.-owned microwave relays.

The Navy system handles about one million messages annually at a cost of \$2.5 million, employing a staff of almost 600 of whom about half are civilian. The Army system, with 1.4 million messages a year, costs about \$6 million and employs almost 1400 of whom about twenty per cent are civilian. The main Air Force system, with 2.5 million messages a year, costs about \$5 million annually and employs about 1000 servicemen and very few civilians. Generally, it appears that the R.C.N. and R.C.A.F. are anxious to operate

their systems with a minimum of operating and maintenance costs, while the staffing of the Army system is governed to a greater extent by calculations of the wartime need for trained and experienced operators.

Among the three Services, there are two quite different attitudes towards the provision of telecommunications, especially those needed for administrative purposes. In the Army, there is evidence of a general preference for ownership of facilities, including telephone equipment, and for operation and maintenance by service personnel or civilian employees. Within the Air Force, on the other hand, telephone facilities are more commonly leased and commercial firms play a more prominent part in staffing and maintaining the systems; the prevailing view has been that the Service should concern itself primarily with the provision of operational telecommunications and should, as far as possible, not become involved in the ownership and maintenance of administrative systems, particularly general telephone service. The attitude of the Navy appears to be less clearly defined, falling somewhere between the two. These differences in approach seem to be largely a reflection of the attitudes of senior officers directing telecommunications operations in recent years in the three Services, but it may be significant that the communications elements of the Navy and Air Force are not as sharply differentiated within their Services as their more autonomous counterpart in the Army—the Royal Canadian Army Signal Corps.

No examination has been made of message content in these systems, nor of the extent of their use for operational purposes. It is to be noted, however, that traffic at present levels represents a daily average of over 13,000 messages throughout the year. In view of operation at near capacity of present facilities, there is particular need for officers in each Service to ensure that their volume is adequately controlled.

Because of the importance attached to communications by all the Services, and their ability to carry large technical staffs, the equipment employed in their systems is generally of good quality—although not as modern and sophisticated as some of their purely operational facilities—and the standards of operation and maintenance are very high. There are, however, certain shortcomings, the more important of which are attributable to the low degree of Tri-Service integration.

Each of the three systems suffers from a weakness in the handling of messages between message centres and the originators or recipients of messages. These tail-ends of the communications process are usually provided for by ordinary mail services—through central registries—introducing delays far in excess of those due to deficiencies in the system itself.

In the transatlantic extensions of the three systems the radio links now

employed have relatively low reliability—especially for the Army and Air Force systems. Circuits on the transatlantic cables, which might be economical if traffic were built up sufficiently by pooling, would improve such services substantially.

The total cost of the three systems operating independently is disproportionate to their combined traffic load. At the same time, the manually-operated relay centres of all three systems are operating near capacity, and each of the Services recognizes a need for automation in order to improve speed, capacity and flexibility. But if automation is introduced without integration, costs will become notably excessive. In recognition of this, the R.C.N. and R.C.A.F. are considering an amalgamated automatic centre in Halifax. However, the Army is proceeding independently in the re-engineering and expansion of its system to provide emergency government communications, with partial automation.

This situation is to be deplored on both technical and economic grounds. The ideal would seem to be a single system with jointly used automatic centres, tributaries operated by each Service individually, common use of overseas extensions, and a general plan which provides enough alternative routing facilities for both peacetime and emergency needs. Such a system could also be planned with the capacity and flexibility needed to handle a sizeable volume of civilian government traffic.

In addition to these main teletype systems with their overseas extensions, and the associated systems serving the Army Brigade and Air Division in Europe, all three Services have general requirements for telecommunications—especially telephone service—which are comparable to those of the civilian departments. Naval, military and air force establishments have their own central exchanges, connected with the local commercial telephone system, and in Ottawa the headquarters of the Department of National Defence and the Armed Forces are included in the central service administered by the Telephone Service Office. In general, telephone service for administrative purposes in the Armed Forces is subject to the same kind of cost-control as is experienced by civilian departments, with much the same effect.

We therefore recommend that: 1 The teletype relay networks of the three Armed Services be integrated into a single automatic system, sharing such facilities as may be appropriate with the civilian teletype services of the recommended Administrative Telecommunications Agency and the overseas services of the Department of External Affairs.

- 2 To the extent that administrative telecommunications facilities and service in Canada are required by the Department of National Defence and the Armed Services, beyond those provided by their special systems, such services be made available to them and managed by the Administrative Telecommunications Agency.

AIR DEFENCE COMMUNICATIONS SYSTEMS

Although operational telecommunications of the Armed Forces were excluded from this inquiry, a partial exception was made for the air defence communications of the Royal Canadian Air Force. Unlike other operational communications of the Services, the air defence systems involve extensive static networks suited to general telephone, teletype and data transmission, operating over large areas of Canada. Consequently, their relationship to the general telecommunication resources of the country, and certain other aspects of their administration, were considered relevant.

Two systems are of particular interest (*see Appendix 9*):

- The Mid-Canada (early warning) Line, which crosses Canada at about the fifty-fifth parallel of latitude.
- Adcom (Air Defence Communications), a microwave system originally built to link a number of the heavy radar stations in the Canadian air defence system with Air Defence Command at St. Hubert, Quebec, but now re-engineered to serve SAGE (semi-automatic ground environment), which forms part of the North American air defence system.

The Mid-Canada Line was designed, of course, as a detection system, and the communications function is subordinate to this primary task. Of the total cost of the Line, amounting to about \$240 million, less than \$20 million was spent for communications equipment.

The Line contains eight main stations and a large number of unmanned intermediate stations operated by remote control. Microwave communications are provided throughout the length of the Line, with southward connections to the populated areas of the country from the main stations. Traffic to and from the Line is carried through these links, of which one is owned by the R.C.A.F., one by the United States Air Force and the others by commercial carriers. There is little through traffic across the Line.

Geographically, the Mid-Canada Line is well located to serve as a lateral bypass route for communications, far removed from all populated areas. Sufficient access from the south is available through the rearward links from the main stations. However, the Line was planned essentially to meet air defence requirements as a detection system and provision was not made for any volume of transcontinental traffic, although this could have been done at little extra cost. Alternatively, segments of the Line might have been engineered to meet general telecommunications needs of certain remote settlements, providing them with valuable links to the commercial systems in the more settled areas. Only defence needs were considered in the planning process, with little or no thought of incorporating greater communications capacity for other purposes.

Within the limits of its capacity, however, the Mid-Canada Line does serve some purposes beyond its defence role. Its radio facilities are used extensively by civilian aircraft not only for identification purposes but also as navigation aids and in cases of distress. The Line now carries some teletype traffic for the Army and the possibility of accommodating commercial traffic in the James Bay area is being considered.

The modification of the Line to carry heavy through traffic would be costly and may not be practicable. Certainly, if the present plans of the telegraph companies for a transcontinental microwave system are carried out, the only possible justification for the development of the Mid-Canada Line for general communications would be its value as a bypass in an emergency.

Despite what appear to be its limited prospects as a communications system, there is need for a fuller assessment of its potential, in relation to requirements, not only of the Armed Forces but of civilian departments and the general public as well. A study should be undertaken immediately of the communications purposes which the Mid-Canada Line might serve, incidental to its primary air defence role. But in the course of such a study, account must be taken of the possible residual value of the Line, in whole or in part, for telecommunications, in the event that its utility for defence should disappear.

The 1400-mile Adcom system runs through territory in Ontario and Quebec that is served, for the greater part, by commercial carriers. Despite this fact, the system, representing a capital investment of about \$20 million, is owned in its entirety by the Crown. All other carrier facilities and most telephone equipment in the rest of the continental air defence system in Canada—of which Adcom now forms a part—have been leased from commercial companies.

In its original design (now referred to as Adcom I), the system was a relatively inexpensive way of providing communications within a major part of

the Canadian air defence scheme. At that time—1951—it was decided to buy the system rather than lease from the commercial carriers, since suitable commercial lines did not exist.

However, the development of SAGE six years later rendered the Adcom I concept obsolete and called for the development of a much more complex and advanced system of air defence communications. It was decided to re-engineer the Adcom system to form part of the new network, although it was far from ideally suited to the new purpose and its modification was expensive—costing about \$15 million. There emerged a highly complicated network, with a multiplicity of cross-connections between commercial facilities and the modified Adcom II system. Commercial carriers have been highly critical of the development of Adcom, on the grounds that it has impeded their efforts to create a more widespread, diversified and dense network of general purpose telecommunications throughout the area affected.

Two arguments have been advanced in support of the decision to construct Adcom. First, it was estimated that leasing costs for comparable commercial facilities would be about \$5 million annually; against this, the annual maintenance costs for the system are little more than \$500,000. The difference should effect recovery of capital cost in about five years. Second, it was argued that Crown-ownership gives the R.C.A.F. necessary experience in the operation of microwave communications.

Both contentions, however, can be challenged. With respect to costs, it is unreasonable to suppose that the R.C.A.F.—proficient as they undoubtedly are in communications—can run a system of this kind more efficiently than specialized commercial companies. At standard commercial rates, leasing costs for the system might approach the estimate on which the comparison of costs was based. But it can be questioned whether such a rate structure would be appropriate in these circumstances.

In this connection, our inquiries have revealed that, in fact, the government may be paying excessive rentals for its leased facilities in the rest of the SAGE system. The Canadian practice has been to pay standard rates for these circuits, but comparable facilities in the United States air defence sectors are leased on multiple circuit rates which are significantly lower. If similar rates were negotiated in Canada, and such possibility should be explored, the argument for Crown-ownership of Adcom on grounds of cost might prove invalid.

The contention that ownership by the Crown is necessary to the development of skills in the R.C.A.F. is no less questionable. First, it runs counter to the general policy of the three Services that static communications systems should, where possible, be leased from commercial companies. While the

R.C.A.F. must be competent in the operation of mobile microwave systems, this scarcely requires experience with large-scale fixed systems like Adcom. Finally, it must be noted that the actual maintenance of the system seems likely to be placed in the hands of civilian contractors, as is done in the Mid-Canada Line, and should this happen, the utility of the system as a source of experience will largely vanish.

Against these arguments must be set the serious loss of flexibility involved in creating a major static system designed solely to meet defence needs which are changing rapidly. Greater involvement of the commercial carriers in the planning and development of such systems as Adcom, coupled with leasing arrangements, would almost certainly facilitate subsequent adjustments to meet changing needs.

The general conclusion to be drawn from the Mid-Canada Line and Adcom systems is that the planning of large-scale static communications for defence purposes has taken inadequate account of broader considerations of public need. Critical defence requirements cannot, of course, be seriously compromised, but the planning should be undertaken in such a way that the other relevant factors are recognized and systems are planned for the greatest practical benefit of the country.

We therefore recommend that: A special study be undertaken to assess the potential value of the Mid-Canada Line for general telecommunication purposes, and to consider the future ownership and role of the Adcom facilities.

ROYAL CANADIAN MOUNTED POLICE

The special needs of the Royal Canadian Mounted Police are met by a variety of systems. Operational control of field activities is provided at the local level by the installation of very high frequency (VHF) mobile radio in eight hundred vehicles, ships and aircraft of the Force, and at some three hundred detachments, giving radio coverage throughout those habitable parts of Canada where the Force provides police services. This VHF system is designed primarily for local control by detachments, but when fully developed will provide, in effect, a radio-telephone net encompassing all but the northern subdivisions of the Force.

Above the detachment level, in addition to normal commercial telephone service, two principal means of telecommunication are used—Telex and high frequency (HF) radio for voice and code transmission.

The Telex service is installed in most divisions and sub-division headquarters at points where Telex exchanges are available. Its primary purpose is to provide communications within the divisions (between divisional headquarters and sub-divisions), reflecting the fact that the operations of the Force are largely decentralized to the division level. An installation at R.C.M.P. headquarters in Ottawa permits the use of Telex also for the general control of the Force.

The HF radio network (*see* Appendix 10) serves a dual purpose. First, it provides a supporting system to the Telex service, embracing headquarters, divisional centres and most sub-divisions. Second, it is the primary means of communication for the four sub-divisions in the North and their detachments, the coastal detachments, and the R.C.M.P. ships and aircraft.

The importance of adequate communications for police administration is recognized in the Force. Systems are generally well managed and operated at a high level of efficiency. There is also a lively, perhaps excessive, concern with economy and the coverage and reliability of the radio service may as a result be unduly limited. The systems are being extended and improved according to carefully developed plans, but standards adopted—for example, the relatively low power of the HF transmitters—may fall short of the needs of the job to be done, especially in the North. The pace of development generally has been limited by a low and apparently unvarying ceiling placed on annual capital expenditures. Numbers employed in planning and operating having been austere, but adequate.

In planning these systems, the sole concern has been for the needs of the Force itself and the facilities are used almost exclusively for its own purposes, except in the North. The requirements of police action, both in normal times and in the event of an emergency, appear to justify the maintenance of such special systems, but to the extent that the general administrative telecommunications of the federal government are improved, their relevance to R.C.M.P. needs should be assessed. Similarly, requirements of the Force which cannot, by themselves, be met economically—such as the need for facsimile transmission services—should be taken into account in measuring total government requirements as a basis for any development programmes.

CANADIAN BROADCASTING CORPORATION

As noted earlier, the Canadian Broadcasting Corporation makes extensive use of commercial telecommunications facilities in its operations, chiefly for the transmission of radio and television programmes throughout its networks. It is the general policy of the Corporation to rely for all its telecommunications,

other than the actual broadcasting, on commercial carriers and to limit its own activities to planning, leasing, and technical supervision of the services.

In most cases circuits are rented for eight or sixteen hours daily, under long-term contracts (five or ten years). When inviting tenders, the Corporation specifies the coverage and quality of circuits needed, but does not concern itself with how or by what facilities the service is to be supplied. Carriers are therefore able to integrate services rendered to the C.B.C. with other services. Tenders are usually called two years in advance, in order to permit successful bidders to construct any facilities that may be necessary.

In all aspects of this operation—planning, procurement, utilization and quality control—a consistently high level of efficiency was found. Adequate planning and control have ensured virtually full utilization. Circuits are obtained at economical rates, in most cases lower than those set by the United States Federal Communications Commission for the transmission circuits of the American networks. It would appear that the telecommunications policies of the Corporation and competent management of this function have contributed to the strengthening of commercial telecommunication across the country.

EXTERNAL TELECOMMUNICATIONS

Federal departments and agencies use a variety of telecommunications to points outside the country. Ordinary telephone and teletype services, including Telex, carry most of the general traffic. A few special arrangements exist, like the leased circuit to Washington of the Department of Defence Production, and the R.C.M.P. radio services reinforcing their Telex link to Interpol in Paris, and to Washington. The overseas extensions of the Armed Forces' main communications systems have been described earlier. However, the principal special requirement is that of the Department of External Affairs.

The communications services of External Affairs have grown rapidly since the end of World War II. From being almost completely dependent on the services of the British Foreign Office, the Department has developed its facilities to provide an integrated system, involving a small courier service and a telecommunications network. Dependence on the British services has been greatly reduced.

The departmental telecommunications services consist of leased Telex and teletype circuits, extended by commercial telegraph and backed by interconnections with the military systems. The kind of service provided to each mission abroad is dictated by traffic volume, the relative speed of alternative services, and security. Security considerations are vital in much of the traffic

and the system embraces considerable cypher equipment. For the same reason, the installation and operation of all communications equipment—including switchboards, teletype, Telex and cryptographic devices—is done by departmental personnel.

Much foreign traffic is carried by External Affairs for other government departments. This permits a higher utilization of facilities and, because Telex is paid for by blocks of time, reduces the unit costs of messages. However, no charge is made by External Affairs to other departments for this service, nor is there any guarantee that traffic will be handled with despatch; traffic is accepted or rejected at the discretion of the Department. The advantages of pooled traffic are unquestionable, but it would seem desirable that user departments be charged for the service and that a policy be established to define what traffic is acceptable.

Generally speaking, the External Affairs telecommunications service is efficiently operated. The quality of circuitry and equipment is well suited to requirements, routing and traffic control are handled effectively, staffing is economical to an extreme, and utilization rates are high.

The Department recognizes the importance of its telecommunications and is working to a long-term plan for extending its services and improving its transmission and cryptographic facilities. However, some acceleration of the programme is needed to ensure fast, dependable service. Like the R.C.M.P., the Department has worked within fairly severe budgetary limitations that have delayed the implementation of its plans. In addition, its programme has been hampered by staffing difficulties, attributable partly to the delays inherent in present recruiting methods—aggravated by the exceptional need to ensure the reliability of its staff—and partly to the special training needed for the operation of its cypher system.

We therefore recommend that: The Department of External Affairs be responsible for providing (at cost) teletype services to points outside Canada for all departments and agencies, other than those served by their own special systems.

TELECOMMUNICATIONS IN THE NORTH

The northern areas of Canada present special problems of communication because of the absence there of the postal, telegraph and telephone services available in the more populous areas. The federal government as the principal

—and in many areas the sole—public authority in the North, is particularly affected by this deficiency.

Each federal department and agency functioning in the North has had to devise ways to obtain communications facilities needed in its operations, and the absence of commercial facilities makes this a formidable task. The departments with well developed telecommunications components—the Armed Services, Department of Transport and R.C.M.P.—have individually developed systems for their own particular needs. Other departments have to improvise and, generally, rely heavily on the existing specialized systems. Rarely do a department's needs generate enough traffic to justify economically a high quality of service—hence the inadequacies already noted in the air traffic control systems and the R.C.M.P. radio network.

No department has the responsibility for measuring the government's total needs or for developing comprehensive telecommunications systems in the North. The Department of Northern Affairs and National Resources, with the broadest responsibility for northern administration, has no long-term communications policy or programme (beyond offering moral encouragement to the commercial carriers to expand their services in the North), nor has it the technical personnel to assess and plan services.

All northern posts of the Department of Northern Affairs and National Resources have access to telecommunications of some sort. The more fortunate ones—chiefly at the main points in the Yukon and the southern Mackenzie district—are served by commercial telephone; similar services are available at points on the Labrador coast and at Frobisher Bay through circuits made available to commercial carriers by the United States Air Force. Elsewhere, northern posts of the Department depend on the radio networks of the Department of Transport, the R.C.M.P., and, at some points, on those of the Hudson's Bay Company and the Roman Catholic Mission Communications System. Where none of these services is available, the Department equips its posts with small radio telephone sets, relying on the Department of Transport for their installation and maintenance—the latter often hampered by distance.

Results are far from satisfactory. Reliability is low; communication with Ottawa may involve routing through three or four separate systems, and reasonably direct inter-communication among northern posts is sometimes impossible. The dependence on a multiplicity of agencies—governmental, commercial and private—often makes privacy of communications unattainable.

The failure to integrate northern telecommunications services of the federal administration is a serious matter. Communications development in the North is particularly dependent on systematic planning and energetic direction by

the federal government. For lack of such planning and direction, the government's programmes for the development and administration of the North will suffer.

We therefore recommend that: A special study be made to assess the telecommunications needs of the North and to prepare long-term plans.

CONCLUSIONS

In the foregoing review of the special needs and systems of certain departments and agencies, your Commissioners express some specific criticism and advance several recommendations. This section contains more general observations on the special systems as a group which, apart from general administrative communications purchased from the commercial carriers, constitute the whole of government activity in this field.

The examination made of the various services disclosed strength in technical matters. Engineering, within the present limitations of policy, organization and money, has been generally competent, and in some departments outstanding; today's major systems are well-managed, with good standards of utilization, operation and maintenance. This technical competence is a valuable asset, but can produce effective and economical services only where directed and supported by appropriate policies and organized efficiently.

An examination of the system maps (Appendices 1-10) tellingly portrays the overlapping and duplication of existing telecommunications. The absence of central policy direction inhibits interdepartmental integration of requirements and pooling of services. The result is that management of telecommunications is highly decentralized, with each department and each of the Armed Services developing its own services without taking into calculation the needs and facilities of others, or the impact on the general development of Canadian telecommunication resources. This leads to duplication of facilities, absence of standardization and gives rise to problems of adjustment whenever requirements change. Departments and agencies whose needs are relatively slight face the alternative of making do with inadequate service or developing small and uneconomic systems.

This fragmentation of management among departments robs the government of economies of scale, both in the engineering of systems and in the negotiation of rates with commercial carriers. Recent experience in the leasing practices of the Canadian Broadcasting Corporation (and Trans-Canada Air Lines) and isolated instances in which competitive tenders have been

obtained for the provision of military circuits, suggest that savings can be achieved by pooling services and combining circuit requirements, and in taking advantage of rate concessions now becoming available to major customers of the common carriers.

The advantages of integration are clearly evident—on a limited scale—with the existing pattern. The ability of the Department of Transport to unify the planning and management of its various systems, and of the Department of External Affairs to pool overseas traffic of a number of departments has undoubtedly reduced costs and improved service. But these are only very partial solutions.

In the all-important matter of forward-planning, the position is particularly serious. With authority diffused, departments act independently and adopt programmes which, in total, result in undue expenditures of public moneys. Equally serious is that in the absence of a common policy, forward-planning will be on an inadequate short-term basis.

Communication services are treated for budgetary purposes as an “object of expenditure” rather than as integral elements of the various programmes they support. Funds are allocated somewhat arbitrarily and generally on a year-to-year basis, which in many cases has little relevance to the phasing of communication development needed to ensure the effectiveness of programmes. This, in turn, has discouraged long-term planning and where it has been undertaken, technical considerations have tended to be overshadowed by a presumption, based on past experience, of relatively inflexible financial limits.

Nowhere is responsibility assigned or machinery provided to relate the planning of government systems to the general development of Canadian telecommunications. Even in the settled parts of the country, the failure to draw the commercial carriers into government planning may hamper the full development of commercial services; in the less developed areas, and particularly in the North, the extension of general commercial services may be rendered virtually impossible through lack of comprehensive planning within the government and consultation with the communication industry.

In the light of these defects of policy and organization, it is scarcely surprising that, with the exception of some military systems, existing government telecommunications were generally found to be barely adequate for present needs and inadequate for the immediately foreseeable future. Although in most cases the need for expansion and modernization is recognized by the operating departments, the rate of progress is too slow. Defence communications are more satisfactory because financial limitations have been less stringent, but here the lack of unified planning and failure to take account of non-defence needs (both governmental and public) has inflated costs, curtailed

flexibility, and may delay modernization or make it excessively expensive. Given the present rate of change in requirements and technology, and the present rate of progress in government communication systems, the gap between demand and supply is bound to widen—not so much because of insufficient funds as because of the unplanned, unco-ordinated basis of spending.

4

CENTRAL DIRECTION AND CO-ORDINATION

Apart from the general administrative communications using facilities of the commercial carriers, there is no case for unified management of government telecommunications. But there is need for central policy and authority to ensure that a cohesive and economic pattern will evolve.

Telecommunications must be recognized to be, first and foremost, a supporting service essential to the conduct of operations. Consequently, the individual departments and agencies, as the active operating organizations of government, must bear the primary responsibility for determining what telecommunications are necessary to the success of their programmes, and for ensuring the effectiveness of those services. In these respects, the management of telecommunications differs in no way from that of other supporting services.

The planning, engineering, provision, operation and maintenance of telecommunication services require technical staffs which few departments can be expected to have. Consequently, most departments need a source of technical advice and assistance in such matters. To a large extent, they can look for this to the communications industry, but any large technical unit within the public service—such as that in the Department of Transport—can be of widespread value as an internal source of advice on planning and operations.

Consideration of the broader interests of the government may sometimes suggest that major requirements of some departments be merged with the lesser needs of other departments in order that improved service or lower rates may be secured by all; the management of the shared service might then be entrusted to the major user—for example, to the Department of External Affairs in

the case of overseas teletype service. Instances of this kind can only be identified if a single organization is given clear responsibility for making periodic or continuous assessments of all the telecommunication needs and services of the government, other than the purely operational military systems which involve no major static facilities.

Whatever autonomy may be granted to the departments having heavy requirements for communications, or to those given specific responsibility for the provision of common services throughout Canada or abroad, certain overriding considerations must be recognized and machinery must be provided to ensure that these considerations are given adequate weight in the planning and management of all telecommunication services of the government. First, any costly and unnecessary duplication of services must be prevented. Second, wherever possible, systems should be designed and operating procedures standardized to permit interchange of traffic, in order to secure maximum flexibility. Third, general standards of manning, operation and maintenance should prevail throughout all systems, and equipment should be standardized as far as the needs of the users permit.

In addition, there must be a central concern with the forward-planning of government telecommunication services, based, on the one hand, on forecasts of the needs of all departments, and, on the other, on a continuous appraisal of technological developments and innovations in the services offered by commercial carriers. Forward-planning on these lines can, as a by-product, provide the basis for guidance to agencies—public or private—engaged in communications research and development. It also bears a close relationship to the emergency telecommunication planning of the government and, logically, the two functions should be merged.

An important part of this central task involves the relating of government needs and services to the general development of Canadian telecommunications. This clearly requires close and continuous liaison with the communications industry—both to keep abreast of projected developments and to keep the industry informed of the plans and needs of the government—and with all authorities concerned with the economic development of the country, particularly in the less settled areas. This is the point at which the interests of the government as a user and operator must be reconciled with its more general interest, on behalf of the Canadian public, in fostering the growth of national telecommunication services.

These matters are, essentially, the collective concern of ministers but, if that concern is to be effective, responsibility must be assigned to a minister to furnish initiatives and to provide, within his department, a supporting staff possessing the necessary knowledge concerning the current state and future

prospects of all departmental and agency requirements, of the techniques available to satisfy those requirements, and of the extent and variety of Canadian telecommunications generally. The duties of this staff would include the following:

- To undertake forward-planning for the development of economical and effective facilities and services to meet the future needs of federal departments and agencies throughout Canada.
- To relate the telecommunication services and forward plans of the government to the needs and services of the community at large, and ensure that government facilities are developed, as far as circumstances permit, in ways which assist the extension and improvement of public services.
- To recommend, to the federal authorities responsible for the planning or conduct of research and development in telecommunications, such areas of inquiry as seem relevant to the future needs of the government.
- To provide technical advice to other departments and agencies and to foster the sharing of other telecommunication staffs in the public service.
- To assist the Treasury Board and its staff in the review of departmental proposals and the assessment of telecommunications management by departments.
- To provide technical advice and assistance to federal agencies having regulatory functions relating to telecommunications.
- To represent Canada at telecommunication conferences for the resolution of international problems, and negotiate international agreements on technical matters.
- To discharge the duties of the Emergency National Telecommunications Organization.

What is contemplated in the foregoing is essentially an advisory and service function, with central powers of control vested only in Cabinet and the Treasury Board. Moreover, the staff should not be confused with the operating personnel required by the Department of Transport for the special telecommunications systems within its various branches.

We therefore recommend that: 1 The Minister of Transport be given primary responsibility for the formulation of policies relating to telecommunications,

and for the co-ordination of the telecommunication services of the government.

- 2 The Minister undertake the previously recommended studies of telecommunication facilities of the Air Defence Command and in the North, and, in the course of his enquiry, consult with the appropriate civil and military government agencies, as well as the common carriers.
- 3 The Minister be supported within his department by an organization to provide expert advice and to perform such non-operating duties as are required for the execution of the telecommunication policies of the government.

The machinery and procedures by which the federal government discharges its responsibility for the regulation of Canadian telecommunications do not come within the scope of this report. The present concern, rather, is with the planning and management of those telecommunication services needed in the course of administering the programmes of the government itself.

The regulatory functions, however, are extensive, encompassing such matters as the administration of federal and international radio and telegraph regulations and agreements, the management of the radio frequency spectrum, the definition of standards of equipment, the licensing of radio services and enforcement of laws and regulations governing their operation, and the regulation of rates charged by commercial carriers. It is evident, even from this brief listing, that these responsibilities are relevant, in various ways, to the administration of the government's own services because what it may do in the regulation of rates clearly affects it as a user of commercial services. How it manages the frequency spectrum and regulates standards of equipment affect it as an operator. The regulatory function and the management of its own services both require the services of specially qualified personnel, raising questions of the feasibility or desirability of using combined staffs for the two functions. Finally, there is a need, common to the two functions, for the evolution of basic policies and objectives defining the role of telecommunications in the

social and economic life and growth of the country. Any study of the organization and methods of operation of the federal government must obviously take these relationships into account. In particular, any duplication of the technical staffs must be avoided.

We therefore recommend that: The planning and co-ordinating organization, under the Minister of Transport, should provide all technical service required in the regulatory processes of the government.

ERRATA

In the report on *Telecommunications*, the identifying labels on certain of the maps appearing as appendices on pages 264 to 267 have been transposed:

The RCN teletype network (Appendix 6) is actually shown in the map on page 267.

The Canadian Army Signal System (Appendix 7) is shown in the map on page 266.

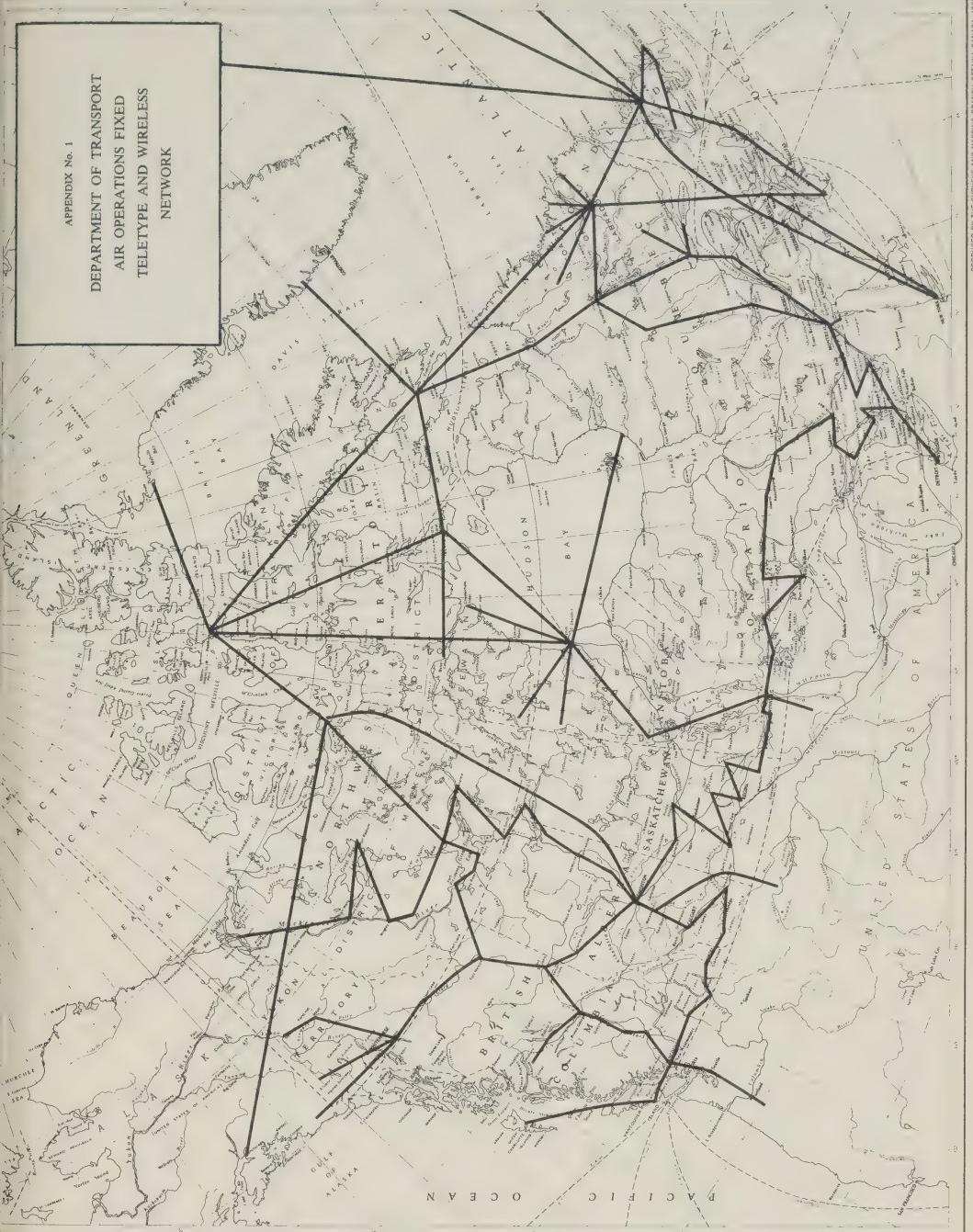
The R.C.A.F. teletype network (Appendix 8) is shown in the map on page 264.

The Air Defence systems (Appendix 9) is shown in the map on page 265. **FOR GLASSCO REPORT. VOL. 2**

APPENDICES 1 TO 10

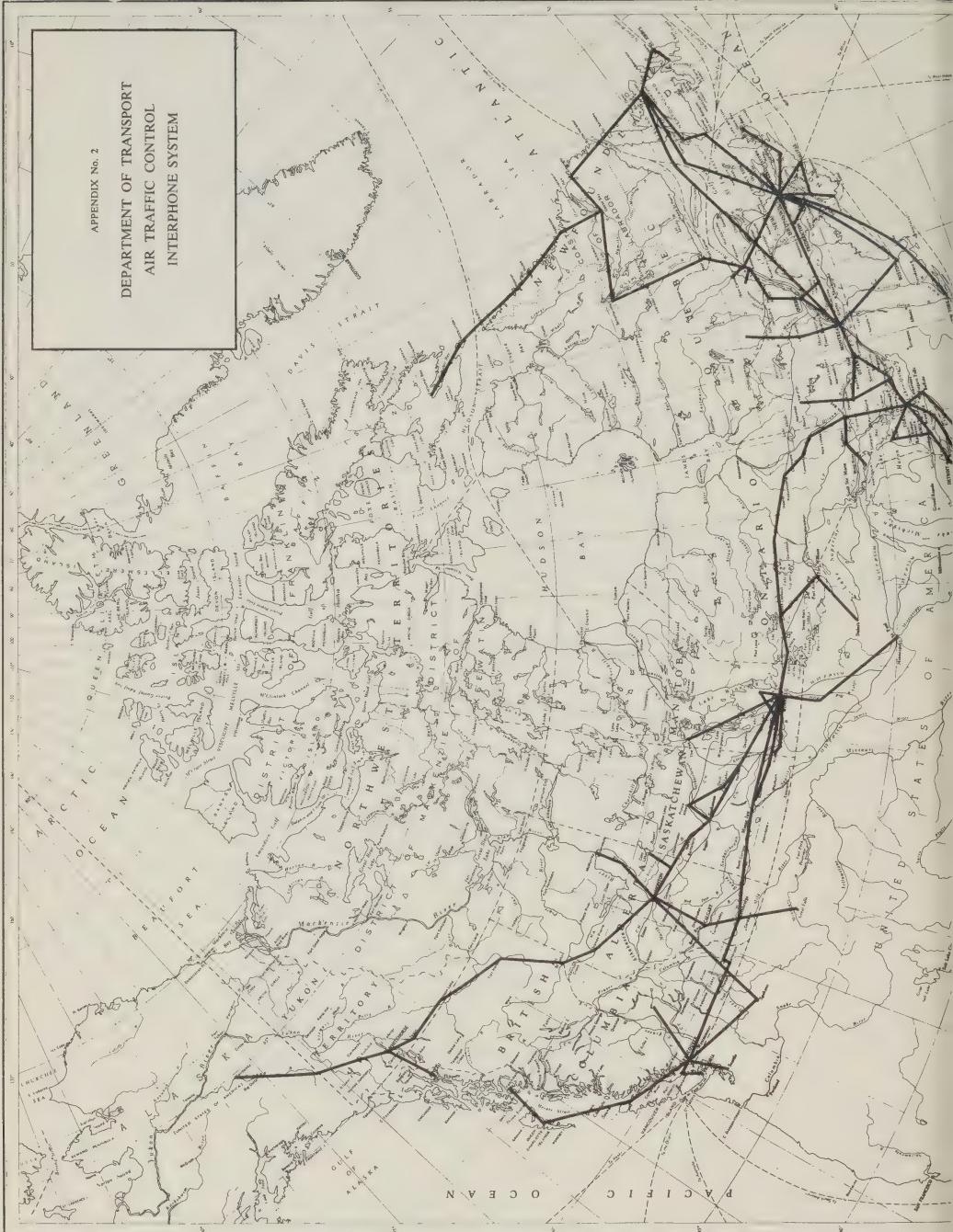


APPENDIX No. 1
DEPARTMENT OF TRANSPORT
AIR OPERATIONS FIXED
TELETYPE AND WIRELESS
NETWORK



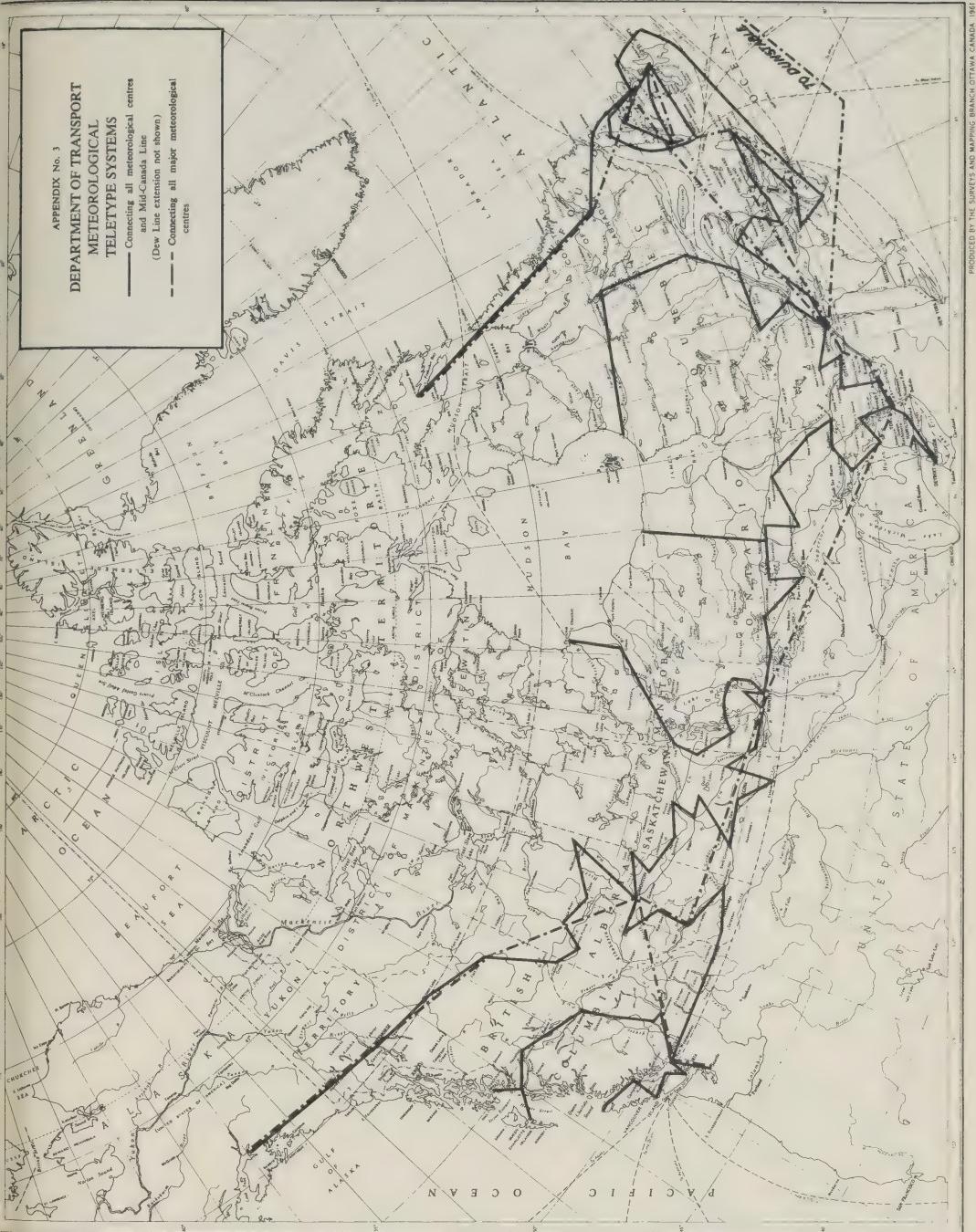
APPENDIX No. 2

DEPARTMENT OF TRANSPORT
AIR TRAFFIC CONTROL
INTERPHONE SYSTEM



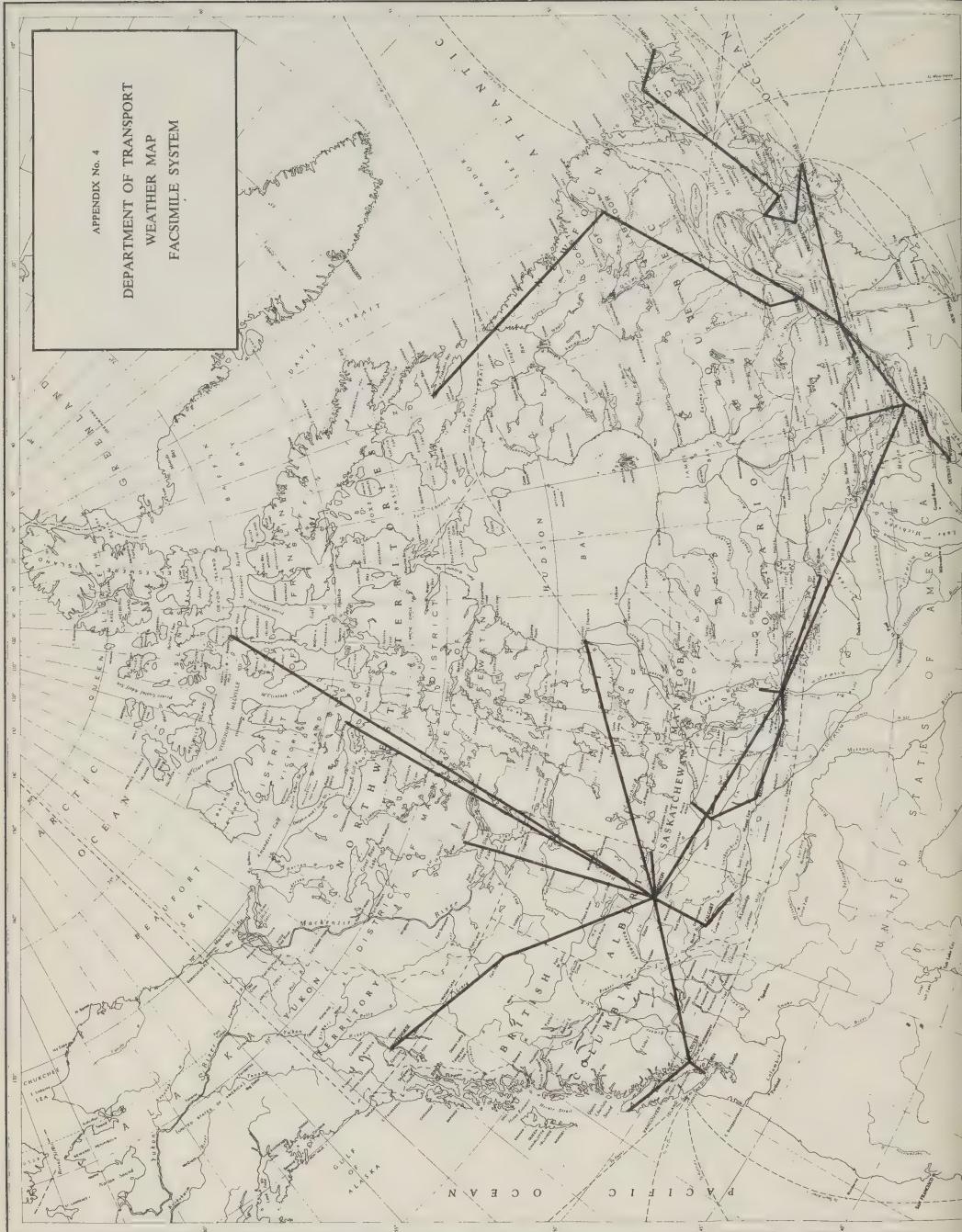
DEPARTMENT OF TRANSPORT
METEOROLOGICAL
TELETYPE SYSTEMS

— Connecting all meteorological centres
(Dew Line extension and Mid-Canada Line)
— Connecting all major meteorological
centres

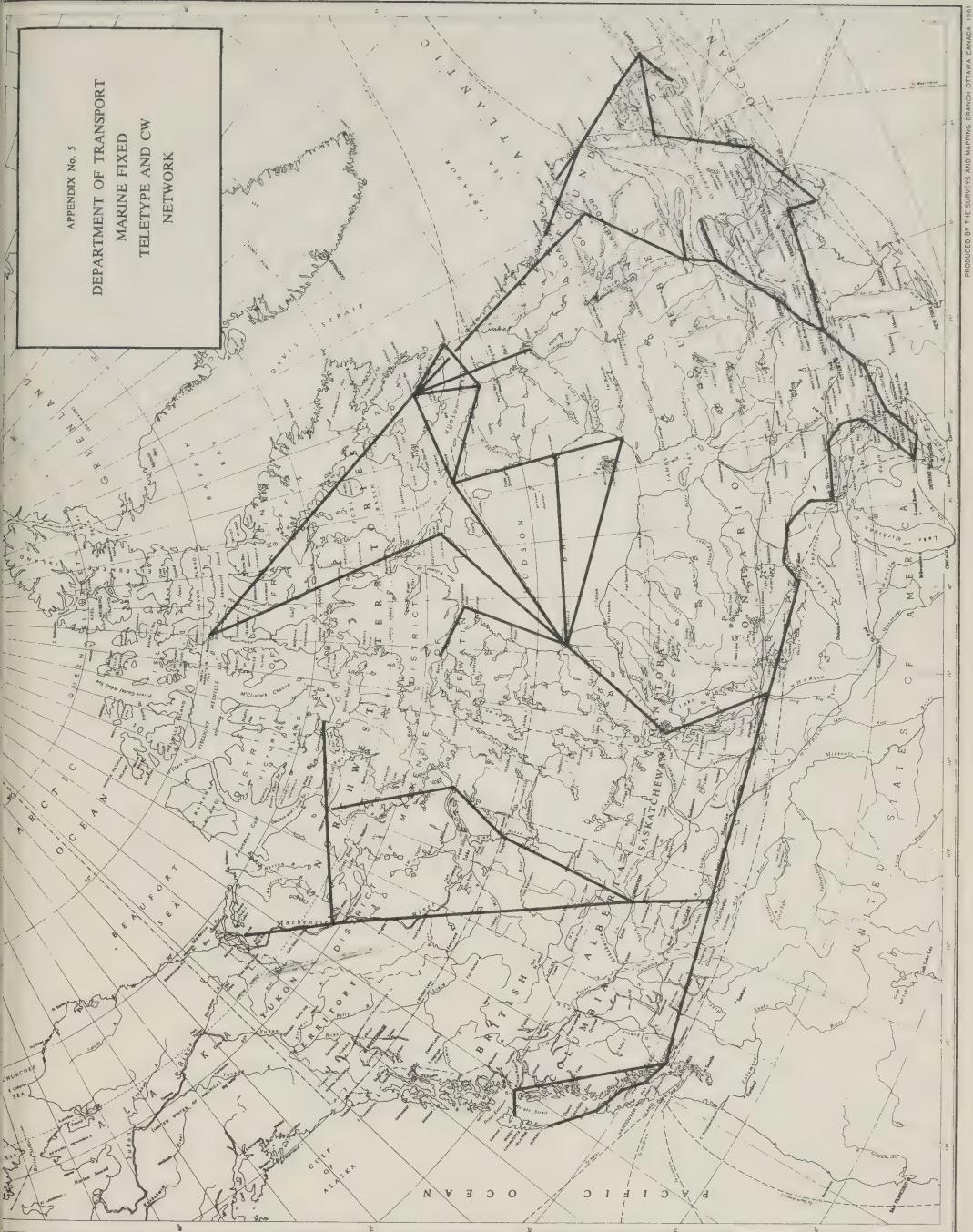


APPENDIX No. 4

DEPARTMENT OF TRANSPORT
WEATHER MAP
FACSIMILE SYSTEM



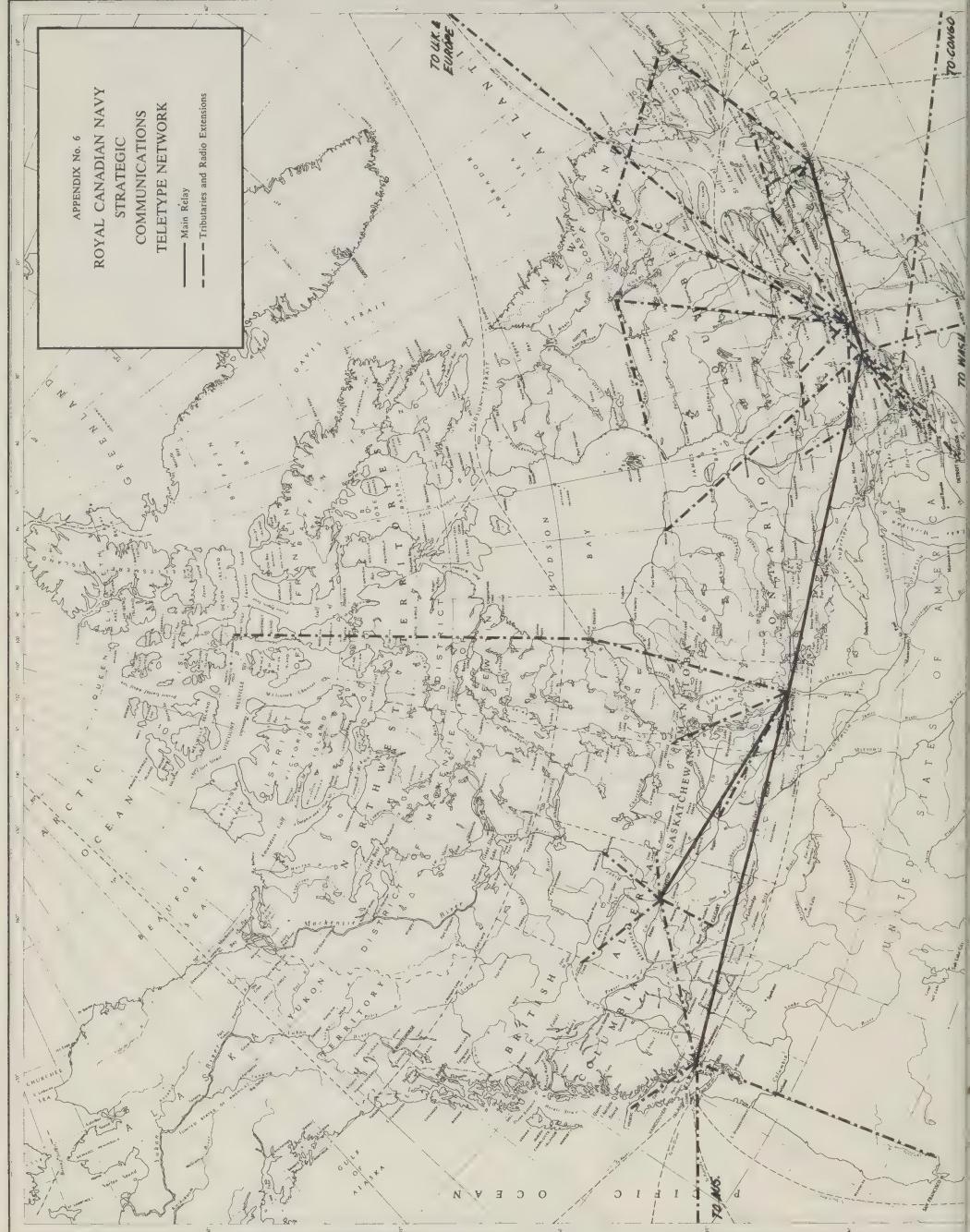
APPENDIX No. 5
DEPARTMENT OF TRANSPORT
MARINE FIXED
TELETYPE AND CW
NETWORK



PRODUCED BY THE SURVEYS AND MAPPING BRANCH OTTAWA, CANADA (1961)

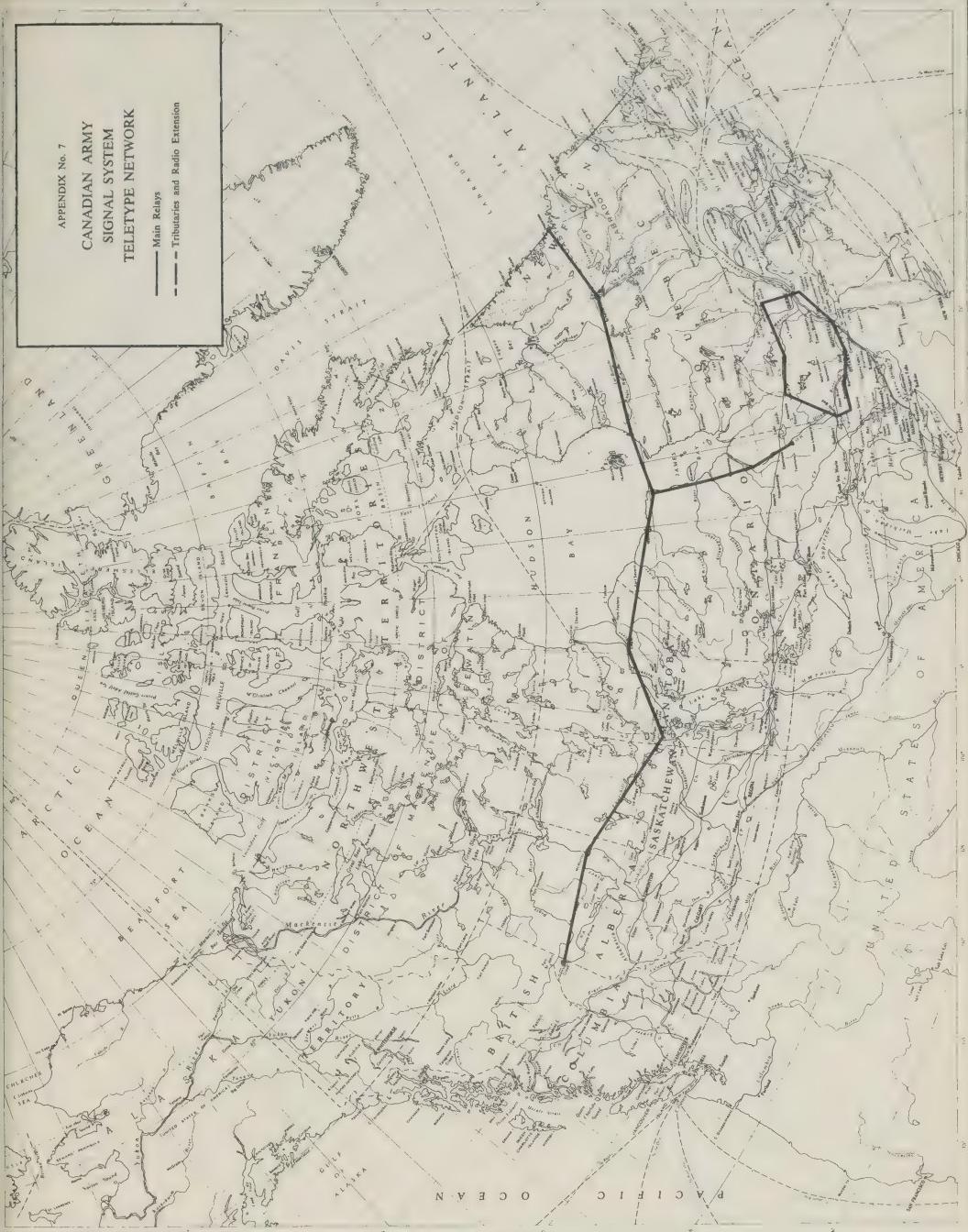
APPENDIX No. 6
ROYAL CANADIAN NAVY
STRATEGIC
COMMUNICATIONS
TELETYPE NETWORK

— Main Route
— Tributaries and Radio Extensions



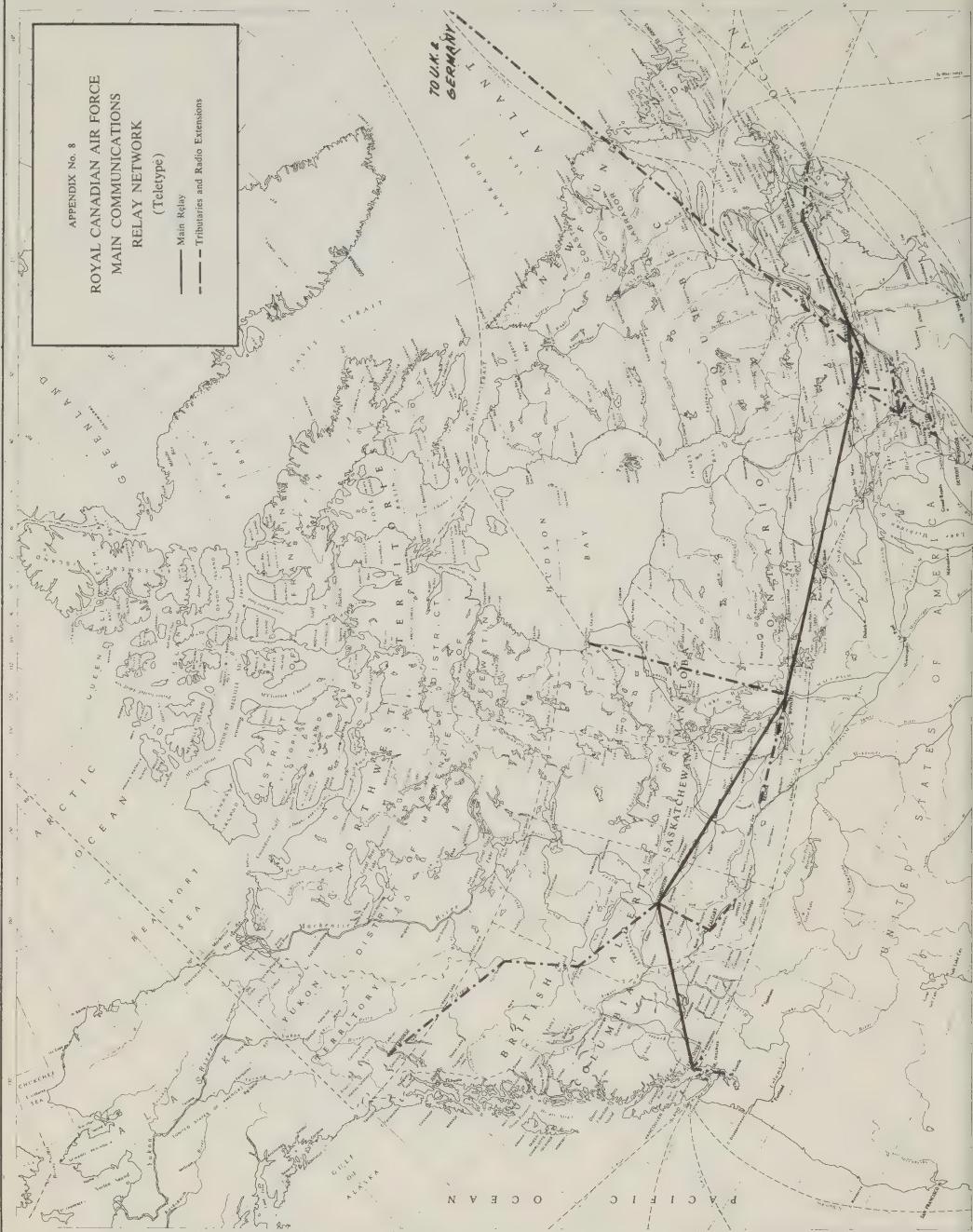
APPENDIX No. 7
CANADIAN ARMY
SIGNAL SYSTEM
TELETYPE NETWORK

— Main Relays
— Tributaries and Radio Extension



APPENDIX No. 8
ROYAL CANADIAN AIR FORCE
MAIN COMMUNICATIONS
RELAY NETWORK
(Teletype)

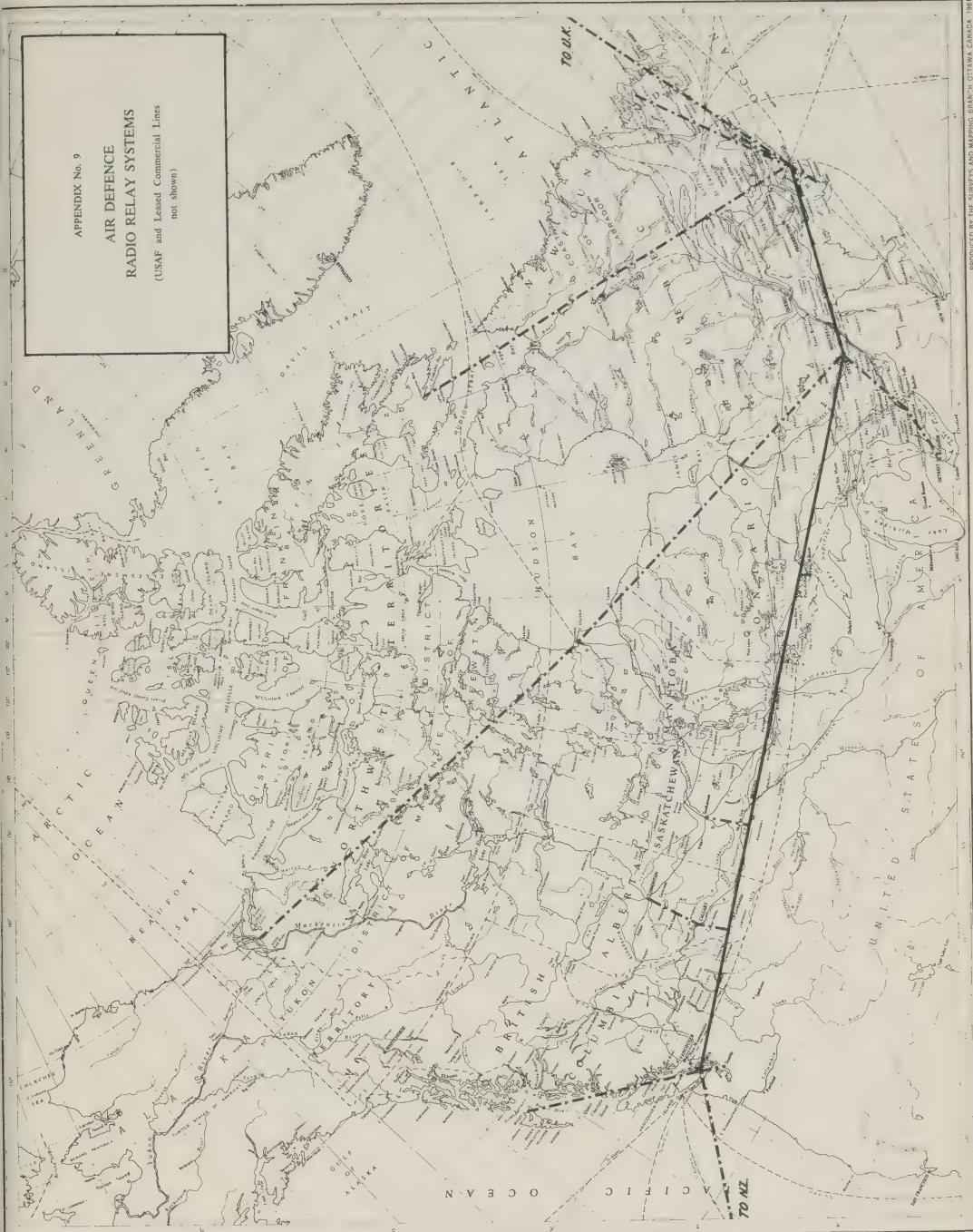
— Main Relay
— Tributaries and Radio Extensions



APPENDIX No. 9

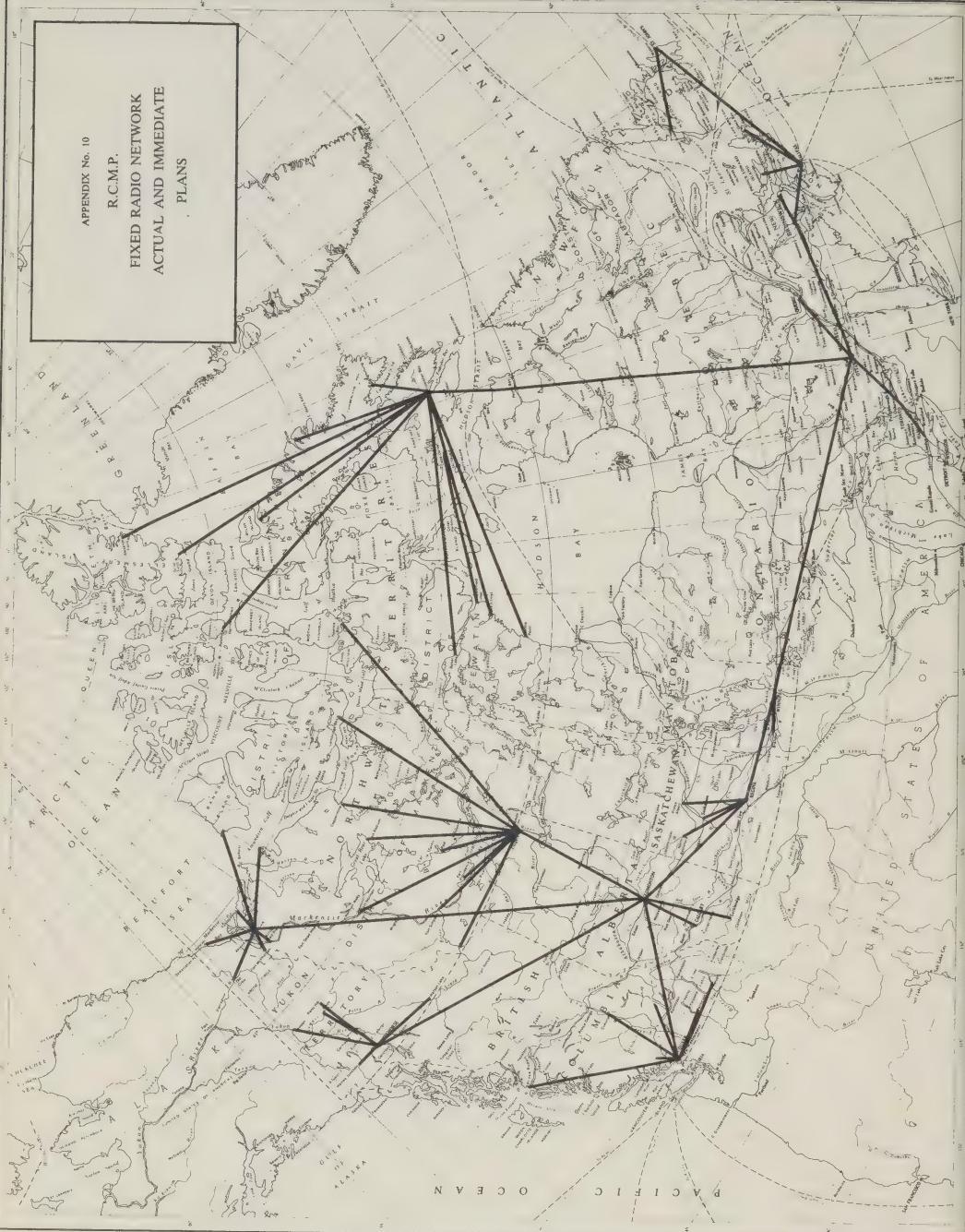
AIR DEFENCE
RADIO RELAY SYSTEMS

(USAF and Leased Commercial Lines
not shown)



APPENDIX No. 10

RCMP.
FIXED RADIO NETWORK
ACTUAL AND IMMEDIATE
PLANS



9 PRINTING AND PUBLISHING

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 9: PRINTING
AND PUBLISHING

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	275
1 INTRODUCTION	277
History	277
Growth	279
Departmental Organization	281
The Nature of the Government's Printing and Publishing Needs	282
Services Provided to Clientele	284
Need for Review	285
2 THE GOVERNMENT PRINTING BUREAU	287
Size and Role	287
Efficiency	290
Costs	292
Field Units	294
Form of Organization Required	295
3 THE QUEEN'S PRINTER	298
His Future Role	298
Methods of Distribution Used	300
Sales of Publications	301
Free Distribution	302
Financing of Government Publications	303
Procurement of Print	304
Relation with Proposed Department of Purchasing and Supply	306

ACKNOWLEDGEMENTS

A small Project Group, directed by Bryan Evans, M.A., A.I.M., Senior Consultant, *P.A. Management Consultants Limited*, Montreal, undertook the detailed investigations into the printing and publishing procedures of the Government of Canada. Mr. Evans was assisted by H. F. Robert Perrin, M.A., F.R.G.S., and John Osman Miller, B.COMM., A.C.I.S., A.A.S.M., A.C.A.A., both from the same firm.

A number of briefs and submissions were duly considered and these are recorded in the final volume of your Commissioners' reports.

Your Commissioners, in acknowledging the assistance received, dissociate those named above from any of the findings and conclusions contained in this report; for these your Commissioners assume full responsibility.

1

INTRODUCTION

The printing and publishing services provided by the Department of Public Printing and Stationery were selected for special study because few other supporting services illustrate so clearly the range of problems confronting the government in managing activities of a supporting and commercial nature. Moreover, its operations are of concern to every department of government: all need printing. Many, both in and out of the public service, question the continued desirability of the statutory monopoly granted to the Department to undertake within its own facilities all the printing requirements of Parliament and the departments of government. Furthermore, the printing trade, in briefs submitted to your Commissioners, contends that a true assessment of the Printing Bureau's costs would demonstrate that, where this statutory directive is being followed, the self-provided services are obtained only at greater cost. Therefore the objective of this report is to evaluate the current suitability of practices established by legislation seventy-five years ago. Amendments to the present legislation will be required in order to implement some of the recommendations put forward for consideration in this report; others can be implemented within the context of the present *Public Printing and Stationery Act*.

HISTORY

Parliament established the Department in 1886; prior to that date all printing had been done by contract, at a total annual cost to Parliament and the

departments of government approximating \$400,000. The purpose of the legislation was concisely expressed by the responsible minister when he moved second reading:

The Government requires stationery and printing every day. The Government, in that respect is essentially a consumer, and the rule of action in this case, the Government being the consumer, should be to get the best article at the least possible price. This is the object of the Bill.

The operations of the Printing Bureau are reviewed in this report to ascertain whether this object is currently being achieved.

Parliament recognized that a distinction existed between requirements of a department primarily concerned with a supporting service such as printing and those of other departments responsible for administering government policy and executing prime responsibilities. Accordingly, it sought to ensure by legislation that the Printing Bureau would be managed by officers with the qualifications and experience required for the efficient operation of an industrial activity of this nature; these prerequisites were set out in the statute and still form part of the Act. The statute also directed that wages be related to those paid in the printing trade in Montreal and Toronto.

Section 14 of the *Public Printing and Stationery Act* centralized printing responsibility under one authority and established the monopoly by creating a captive market.

14. A Government establishment shall be organized at Ottawa, and shall be under the management of the Director and Superintendent of Printing in which establishment all printing, electrotyping, lithographing and binding and other work of like nature required for the service of Parliament and the several departments of the Government shall be executed.

This statutory requirement to undertake *all* printing within the Printing Bureau has not been fully honoured, partly because the Bureau has never been equipped to produce every mode of printing. For example, bond certificates, money and stamps have always been acquired from other sources. In turn, the Printing Bureau has not attempted to undertake the production of fine colour work and all types of special forms. However, until World War II, the Bureau sought to produce all printing of a general nature required by Parliament and the departments of government. Wartime demands for printing led to proportionately greater utilization of commercial printing facilities. This practice has persisted, with the result that, in certain years since the war, contract printing has exceeded the production of the Bureau.

Also in the 1940's, wartime needs encouraged certain departments, National Defence in particular, to enlarge and convert internal reproduction facilities into small printing plants, some at Ottawa, others at various places across Canada. Since 1951 most of these have been placed under the jurisdiction of the Queen's Printer and their staffs transferred to the Department of Public

Printing and Stationery. However, map printing has continued to remain outside the responsibility of the Queen's Printer, the preparation and publishing of maps being a statutory responsibility of the Department of Mines and Technical Surveys. The National Research Council and many Crown corporations enjoy an option because they are not designated as departments of government: they may use the facilities of the Printing Bureau or make other arrangements.

Throughout its history, the Printing Bureau has been beset with cost problems. At its origin the House of Commons was told that a suitable building to house the Bureau would not cost more than \$50,000. It cost several times that sum; thus, no effort was made to recover its cost out of printing charges. A new machine, the linotype, which came on the market shortly after the Bureau's inception, created another unforeseen cost. Accordingly, Parliament was asked to appropriate funds for the capital cost of the machines and the practice was established, which still persists, of ignoring depreciation of equipment as a cost factor. In 1956 the Bureau moved into a new building which cost \$16 million. This extravagant outlay for an industrial plant has undermined public confidence in the ability of the Printing Bureau ever to achieve its statutory objective: that of providing the Houses of Parliament and the departments with printing at the least possible cost.

GROWTH

The staff of the Department has multiplied almost sixfold since the first plant came into operation. The expansion by decades since 1891 is illustrated in Table 1.

Table 1—GROWTH OF DEPARTMENT OF PUBLIC PRINTING AND STATIONERY

Year	Number of Employees
1891	341
1901	511
1911	861
1921	730
1931	721
1941	709
1951	991
1961	1,818

Part of the increase in the last decade can be accounted for by the staff acquired from the printing units of other departments which were placed under the Department's jurisdiction. The staffs of these outside printing plants now number 398. However, production personnel at the main plant have also increased since 1951 by almost 250, the personnel of the administrative and

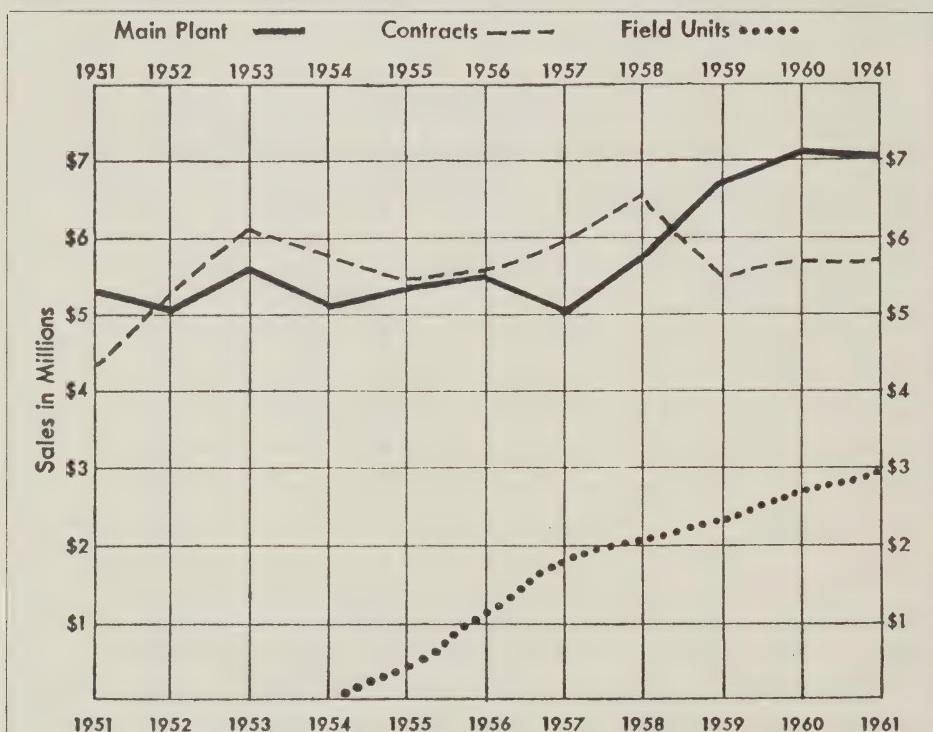
financial services branches by just over 100, sales and distribution employees by approximately fifty, and procurement and stores employees by almost forty. The present distribution of the Department's staff is shown in Table 2.

Table 2—DISTRIBUTION OF DEPARTMENTAL STAFF—1961

Executive	11
Printing Production—Main Plant	987
Printing Production—Field Units	398
Procurement, Purchasing and Stores	178
Publications	91
Administrative and Financial Services	153
	<u>1,818</u>

The growth of government printing requirements in the past decade can be seen by reference to Exhibit 1 taken from the Department's annual report for 1960-61. The growth indicated for the field units does not represent a true increase in volume. Sales values are only included for these units, subsequent to the time that they became part of the Department of Public Printing and Stationery.

Exhibit 1—COMPARATIVE PRINTING SALES



This Exhibit also illustrates the trend over the decade in the apportionment of government printing requirements between the Bureau and the commercial printing trade. However, the sales values presented in the Exhibit must be approached with some caution. Whereas the sales value of contracts represents the full selling price to the government, the sales figures for government printing fail to include costs equal to almost one-half of those billed. The costs omitted are paid out of parliamentary appropriations, either of the Department or of those departments providing services without charge to the Printing Bureau. The printing purchases of departments not passing through the Department, some \$5 million, are also excluded. Nevertheless, even when the Department's sales figures for production within its own facilities are adjusted to include full costs, the resulting figure is small relative to the total annual sales volume of the Canadian printing trade of about \$900 million.

DEPARTMENTAL ORGANIZATION

The duties imposed by legislation on the Department of Public Printing and Stationery are concisely stated in Section 4 of the *Public Printing and Stationery Act* which reads:

4. (1) The Department is charged exclusively with the following duties in relation to services required for the Senate and House of Commons and the several departments of the Government, namely:
 - (a) the execution and audit of all printing, stereotyping, electrotyping, lithography, binding work, or work of the like nature, and the procuring of the material therefor;
 - (b) the purchase and distribution of all paper, books and other articles of stationery of whatsoever kind, except books that are required for the Library of Parliament, and printed books required for the use of the chaplains, libraries or schools in the penitentiaries which may be procured in the manner authorized by law;
 - (c) the sale of all books or publications issued by order of either or both Houses of Parliament or by any department of the Government; and
 - (d) the audit of all accounts for advertising.

The last responsibility, that of auditing all accounts for advertising, is now the responsibility of the Comptroller of the Treasury.

The main services provided by the Department of Public Printing and Stationery are clearly reflected in its organization, as depicted in Exhibit 2. Four branches have primary responsibility for its main functions and two others, the Administrative Services Branch and the Financial Services Branch, service the other branches.

The Printing Production Branch (Main Plant) at Hull, Quebec, produces a wide variety of the printed matter requisitioned by Parliament, and by departments and agencies of government. It also prepares specifications for

all printing work, whether produced in the plant or through commercial printers.

The Outside Printing Production Branch operates eleven printing units at locations convenient to departmental operations in the Ottawa area, and sixteen units located outside Ottawa where they can best serve departmental needs. Generally, the work performed by these units requires offset machines and bindery equipment and is outside the scope of the normal duplicating facilities of departments. New offset machines, now often found in departments, makes this distinction between duplicating and printing increasingly difficult to define.

The Procurement, Purchasing and Stores Branch purchases stationery, paper products and office machinery for the various departments and agencies of the government, procures printing materials and equipment for the Department itself, and places printing contracts for work to be performed by commercial printers. It engages in product research, develops specifications and analyzes the comparative quality of standard items which are catalogued and stocked for use within the government service. Reserve stocks of paper, printing materials and equipment repair parts are centrally maintained. An office machine section tests, repairs and maintains office machines, and is responsible for the allocation of typewriters, adding machines, calculators and similar equipment upon requisition by departments and agencies.

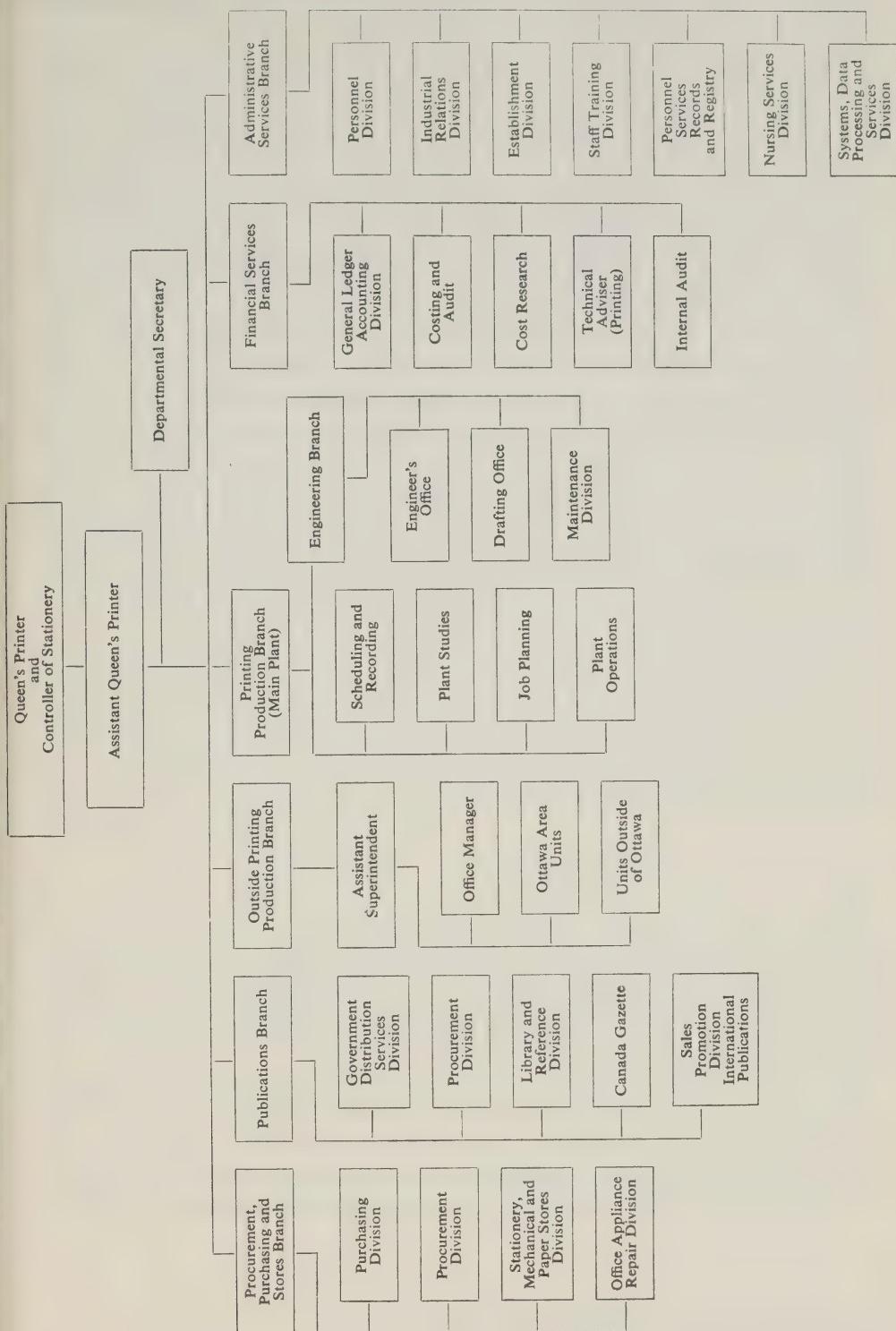
The main role of the Publications Branch is to distribute government publications by: compiling and issuing catalogues and price lists; selling publications through the mail and through government and commercial bookstores; distributing publications to institutions and persons entitled to free issue; and maintaining mailing lists for departments and agencies. The Branch also publishes the *Canada Gazette* and the *Statutes of Canada*, and acts as the exclusive sales agent within Canada for United Nations publications.

Supervising and co-ordinating the work of all these branches is the Queen's Printer and the Assistant Queen's Printer, with the Secretary of State serving as the ministerial head.

THE NATURE OF THE GOVERNMENT'S PRINTING AND PUBLISHING NEEDS

The purpose of this report is to evaluate the efficiency with which the Department provides printing and publishing services. It does not attempt to assess the nature of the printing orders placed by departments and agencies of government which give rise to the large and growing volume. Nevertheless, some understanding of the nature of these printing requirements is necessary

Exhibit 2—ORGANIZATION OF THE DEPARTMENT OF PUBLIC PRINTING AND STATIONERY



in order to determine whether the government's needs are being satisfactorily met.

Most government printing is designed to support, at least indirectly, the implementation of a government programme or the achievement of a public policy. Printing needs range from simple forms and letterheads to major publications. Some are printed at irregular times, others annually, quarterly, monthly or daily. Some are for internal use, others for communicating with the public. Some are to inform, others to persuade, and others to regulate or direct. Internal administrative requirements alone consume vast amounts of printed material, as do the large and growing information programmes of departments and agencies.

Publications include those that originate with Parliament such as the *Debates* of the House of Commons and the Senate, their proceedings, committee reports and statutes. The *Canada Gazette* is published weekly as a medium for publicizing official transactions and regulations of the government. Publications originating within departments and executive agencies include their annual reports, and a wide variety of other material. Subjects range from crop reports to tourist guides, from *The Canadian Bill of Rights* to a book on Eskimo art, from a pamphlet on prospecting for uranium to one on mushroom collecting for beginners, from an atlas of Canada to local tide tables. Few subjects are not covered by the numerous titles published, stocked and distributed by the Department of Public Printing and Stationery.

The printing requirements of Parliament come first in the Department's order of service priority. Next are those printing requirements of departments and agencies which require special treatment either because of urgency or their confidential nature. Other printing is scheduled as a fill-in, or is contracted out to the printing trade.

SERVICES PROVIDED TO CLIENTELE

Fifteen departments originate over three-quarters of the printing demands of the government; therefore, an effort was made to assess consumer reaction to the printing services provided by interviewing more than sixty of their officers. All interviewed are directly engaged in either procurement, information, or editorial activities. Naturally, many different viewpoints were expressed, but the consensus is that:

- The Printing Bureau is giving good service, with noticeable improvements in recent years.
- Printing orders are generally completed and delivered within the time promised, although delays may occur on certain work because of other orders

receiving higher priority. The delay may be further aggravated if the work is eventually put out to tender, for present tendering procedures are time-consuming. (Investigation indicated that many alleged delays originated with the departments by reason of extensive last minute changes in manuscripts, proofs, etc. Other delays were due to inadequate co-ordination of translation work with production.)

- Often the quality of printing is better if orders are completed internally. Present tendering procedures, which permit commercial printers to receive contracts, even though they have an unsatisfactory past performance record, or lack the facilities necessary for the quality or type of printing to be executed, are largely blamed for the lower quality of work contracted out.
- For a continuing publication, the transfer of orders from one commercial printer to another and possibly back to the Bureau, affects liaison between the originating department and printer, and often results in changes in the type or style, detracting from the appearance of the publication.
- Printing Bureau prices are generally lower than when the work is done outside. Moreover, because the departments paying for the printing orders have no say in selecting the printer, fluctuations in the price for like things occur which make accurate budgeting difficult.

The departments canvassed are generally less satisfied with present arrangements for procuring and repairing office machines and equipment. Most were critical of the manner in which their orders for specialized equipment are filled and desired greater flexibility and freedom in procuring minor requirements. These criticisms are analyzed further and recommendations are made to improve present practices in the reports on *Paperwork and Systems Management* and on *Purchasing and Supply*.

NEED FOR REVIEW

The functions for which the Department is now responsible were originally allocated by the Act of 1886, save for those responsibilities assumed later for the procurement, storage, repair and maintenance of office machines and equipment. Since this statute was enacted, substantial changes in the size, responsibilities and organization of the government have occurred: new equipment and technology have altered the nature of the printing industry; alternative processes are available which provide a substitute for traditional methods of printing in meeting many departmental needs—in short, after seventy-five years a review is timely. Furthermore, your Commissioners make recommen-

dations in other reports, the implementation of which will have direct impact on the form, and the financial, personnel and other administrative procedures of the organization selected to provide the printing and publishing services necessary to support the government's primary activities.

2

THE GOVERNMENT PRINTING BUREAU

SIZE AND ROLE

Although in 1886 the Department of Public Printing and Stationery was charged with responsibility for conducting *all* printing, electrotyping, lithographing and binding within its own establishment, a portion of the government's printing requirements has always been contracted out. The proportion contracted out has been a source of controversy, for the private industry has contended that its share is inadequate. This controversy was intensified in the last decade when the Department moved into its new, enlarged building and replaced some of its machinery with higher capacity equipment. The Department, as a result, was encouraged to undertake tasks which, during World War II and in the immediate post-war period, had been contracted out.

Despite the specific statutory direction to undertake all printing, the Department wisely restricted its operations, so as to exclude certain printing requiring specialized equipment which might not be employed economically over the full year. Nevertheless, the experience of the Printing Bureau illustrates in a telling manner the government's difficulty in limiting the growth of a supporting activity once it is undertaken.

The Printing Bureau acquired facilities designed to meet quickly and efficiently the special requirements both of Parliament and of the departments of government. Parliamentary debates must be printed and distributed in a matter of hours; bills must be printed and whenever necessary reprinted, as soon as copy is received; and proceedings of committees must be distributed in printed form with minimum delay. Publications, such as the *Canada Gazette* which publishes proclamations and regulations having the effect of law, must appear punctually and sometimes at short notice. Other rush and confidential

work, as well as the documents which must be laid before Parliament, in both languages, within a stated number of days, receive exceptional service. Such service can be obtained only at greater cost, for equipment and men must always be ready to undertake this work with the required despatch. Unfortunately, special requirements such as these are unevenly distributed over the year and reach their peak when Parliament is in session. Furthermore, the periods of peak activity are often unpredictable and usually last for only a few hours of the day. As a result, unless the Department utilizes its facilities for other work, this expensive capacity will be under-employed at additional cost to the taxpayer.

However, like many other activities of the government, described in the report on *The Make or Buy Problem*, printing services have expanded without careful thought being given to the appropriate size. The facilities of the present plant are rarely fully utilized on parliamentary requirements for these represent only fifteen per cent of the total value of production. This and all other work designated by the Department for production internally total less than two-thirds of the chargeable hours; included, at present, are most Dominion Bureau of Statistics publications, the routine orders of the Army and Air Force, *Foreign Trade* published fortnightly by Trade and Commerce, the *Public Accounts*, the monthly *Labour Gazette*, the *Postal Guide* and other publications of a similar nature. Most of these publications could be as readily produced in outside commercial facilities at competitive prices.

Nevertheless, once the facilities have been acquired, short of disposal, the printing operation cannot be conducted at reasonable cost unless the facilities are utilized to a high degree by shift work, use of modern production control techniques, and careful planning of workload. Modernization or replacement of equipment further increases the capacity of the existing facilities. In short, a continuous growth may occur which adds unnecessarily to the size and operating responsibilities of the government.

Unquestionably, parliamentary requirements receive an extremely high level of service from the Department of Public Printing and Stationery. The priority scheduling given to parliamentary printing does, in fact, delay other work and reduces the over-all efficiency of the printing plant. Present facilities of the commercial printing industry, taking into account their geographic location, could not equal this service. Furthermore, contracting out may add to delays and costs. Therefore, rush and small jobs may be appropriate for production within the Department's own facilities; otherwise special contracts would have to be negotiated with the printing trade. Other publications such as the *Canada Gazette* have a special legal significance which may warrant continuance of the present internal production responsibility.

The service given these and many other printing orders might possibly suffer if the printing contracts were transferred to commercial printers. At the same time the Printing Bureau requires at least a minimum flow of orders if its operations are not to add considerably to the present cost of government. Nevertheless, unnecessary growth may continue to occur unless the government printing operation is forced to compete with the trade for marginal printing orders, much of which, as previously noted, derive little special benefit from production in the government's plant. Therefore, the Printing Bureau should be allocated only a portion of government work without tender; the balance should be obtained in competition with commercial printers.

Parliamentary printing, small jobs in the Ottawa area valued at less than \$1,000 and other rush or special printing, all of which are most likely to benefit from production within the Printing Bureau, should continue to be allocated without competitive tendering. Less than two-thirds of the Bureau's present volume consists of work now classified by the Department as requiring production internally. Because the plant does not now operate two full shifts, but utilizes a night shift only to the limited extent necessary, the total hours worked are approximately seventy-five per cent of those possible on a full two-shift basis using the equipment now available. Based on current practices and definitions of work requiring internal production, no more than fifty per cent (two-thirds of the seventy-five per cent) of the plant's present capacity on a two-shift basis, should be allocated without competitive tendering. This should be the maximum for which the Bureau need not compete.

The charges made by the Bureau for this captive work should include the full cost of materials, labour and all applicable overhead, the latter being charged to the work on the basis of an assumed seventy-five per cent utilization of present capacity on the two-shift basis defined above. A surcharge of fifteen per cent should be added to the costs of all rush work (other than of a continuing nature) undertaken internally in order that originating departments will have incentive to eliminate internal inefficiencies and delays which may contribute to the rush.

The Printing Bureau should compete with the commercial printing industry to employ the remaining half of its present capacity. The objective should be, in the long-run, to break even financially, including recovery of the full cost of the Bureau's operations.

We therefore recommend that: 1 All parliamentary papers, including the *Debates* of both Houses, the statutes, documents to be tabled in Parliament or

ordered to be printed by Parliament, other printing such as the *Canada Gazette* and all small orders (say under \$1,000 for Ottawa delivery) continue to be printed within government facilities, without tender, up to a total not to exceed fifty per cent of the capacity of present facilities operating on a two-shift basis throughout the year.

- 2 The full costs of the above work be recovered from the appropriations of Parliament and the several departments, based on an assumed utilization of present facilities at seventy-five per cent of their present capacity on the two-shift basis, with a fifteen per cent surcharge for certain rush work.
- 3 All other work performed in the Printing Bureau be obtained by competitive tender, with the objective to "break even" financially, after taking account of all applicable costs.

EFFICIENCY

If the Printing Bureau is to compete successfully for printing work to keep its facilities operating at reasonable volume, the Bureau must strive for greater operating efficiency. The Bureau's plant in Hull, Quebec, is one of the largest printing plants in Canada. Although its building and some of its equipment are new, much equipment is neither the most modern nor versatile. Within its ability to compete and break even financially, freedom must be given to replace obsolete equipment with new, high-speed and versatile equipment, where this is warranted.

The Bureau's management recognize that they are running an essentially industrial operation of a size that requires effective pre-planning, production control and scheduling, cost studies, methods analyses and labour studies. The freeing of a portion of the Department's captive market will require acceleration of the steps already being taken, though slowly, to institute these management techniques.

The Plant Studies group, first set up in 1958, has studied a number of manufacturing operations and has established standards to control labour utilization. Productivity increases of fifteen per cent are claimed in the sections studied, resulting in estimated savings of \$40,000 per annum. Additional annual savings of \$300,000 are considered possible when the entire printing operation has been studied.

Production control covers the loading, planning, scheduling and expediting of printing through the plant in order to provide the required service to customers at the lowest production costs. Recently, a new system of control, involving the use of automatic data processing equipment, has been introduced in certain sections of the plant. Lack of work standards and trained staff has hampered realization of the full benefits of this new and expensive equipment. This is particularly unfortunate because the Bureau's requirements could probably have been met equally well by an efficient manual system. Nevertheless, improved control has resulted from the new system where it has been introduced.

The Job Planning Section plays a very important role in improving printing efficiency. Job planners receive printing orders from departmental authors and chart the various printing operations necessary to produce the finished product. Their plans form the basis for the scheduling of production and determine the delivery dates and cost estimates given to the departments. These men are the salesmen of the Department. Nevertheless, despite this key role, only recently have results been compared with plans in order to assess the effectiveness with which the planning is being carried out.

The Department's present accounting system, based on historical costs only, is inadequate to achieve the best management control of costs. Introduction of standard costs into the accounting system would highlight deviations of actual costs from scientifically determined standards, and thereby point the way to the management decisions that may be necessary to remedy unsatisfactory situations. Among other things, this would lead to improved control over the non-chargeable time of employees and the spoilage of materials.

The record of the Branch in endeavouring to improve control over direct labour and material costs is nevertheless commendable. Steps taken to control other costs, however, compare less favourably.

Because no depreciation of buildings or equipment is included in the costs which are recovered from customers, the Department has had less incentive to control the use of facilities. Overhead costs are undoubtedly high compared to those of a commercial printer, but to be fair it must be recognized that many of these costs are outside the control of the Production Branch and often even outside the control of the Department. The Bureau's management,

if given the requisite authority to control all costs, will have the necessary incentive to do so through being forced to compete with the commercial industry for a portion of the now captive market.

We therefore recommend that: The programme to improve production efficiency be accelerated and be applied to all aspects of the Printing Bureau's operations.

COSTS

Much of the controversy surrounding the operations of the Printing Bureau centres on the contention that complete and accurate costs of the Bureau's operations are not known or taken into account. Your Commissioners, elsewhere, refer to the inadequacies of the present method of distributing costs within the government, and recommendations are made in the report on *Financial Management* designed to remedy the situation. Nowhere is the need more clearly evident than in the case of supporting services such as printing.

Section 37 of the *Department of Public Printing and Stationery Act* permits the Minister of Finance to advance money out of the Consolidated Revenue Fund to the Queen's Printer in order that he may:

purchase material for the execution of orders given or requisitions made under the provisions of this Act, and to pay the wages of workmen in the execution of such orders or requisitions.

Funds advanced may be used again when the Queen's Printer collects from departmental customers. The object is to realize neither a profit nor a loss.

However, only those material and wage costs that go through this revolving fund or advance account are billed to the Department's customers. Other costs are borne by funds appropriated by Parliament. For example, the Main Estimates for the 1962-63 fiscal year include the following votes for the Department of Public Printing and Stationery for the purposes indicated:

	\$
Departmental Administration	790,500
Purchasing, Stationery and Stores	1,302,400
Distribution of Official Documents	652,100
Printing and Binding Official Publications for sale and distribution to departments and the public	971,500
Printing of Canada Gazette	140,000
Printing and Binding the Annual Statutes	35,000
Plant Equipment and Replacements	297,800
<hr/>	
	<u>4,189,300</u>

A large portion of these votes applies to functions of the Department, other than printing. Nevertheless, the result is two systems of accounting. Costs chargeable to the above appropriations are accounted for on a cash basis; the costs chargeable to the revolving fund are on an accrual basis with due recognition being given to receivables, inventories, etc.

Furthermore, costs are incompletely allocated to customers. For example, no costs are included for the acquisition, replacement or depreciation of capital facilities, either buildings or equipment. Other items such as heating (\$105,000), cleaning (\$83,000), light and power (\$79,000) and water (\$15,000) are borne by votes of the Department of Public Works, and many other expenses, particularly the cost of employee fringe benefits, are paid out of the votes of other departments and agencies.

Considerable publicity has been given to the cost of the present Printing Bureau. Regardless of the cause, the effect is that the 918,620 square feet available in the building cost \$16,038,939 or approximately \$17.50 per square foot. Normally commercial printers of this size seek to limit the cost of a suitable building, including air-conditioning, to about \$10 per square foot. It is not the purpose of this report to conduct an inquest into the cost of this building. Nevertheless, the management of the Department has responsibility for the space utilized. The present printing and other operations, although occupying all this space, could be efficiently conducted in a far smaller area. If charged for space occupied, unneeded space might be released and made available for allocation to other departments. Regardless of the circumstances leading to the cost of the present facilities, the charge should be based on a fair economic rent for appropriate facilities, or the Bureau moved into more suitable and less costly accommodation.

In summary, total current costs, including the cost of the building space actually occupied, are about sixty per cent higher than costs presently being charged to government departments and agencies. Using a realistic economic rent this percentage might be reduced to forty-five per cent. However, economies were identified which could reduce this percentage to thirty-seven per cent. On this basis, your Commissioners believe that the Printing Bureau would be able to obtain competitively sufficient volume to realize the recommended objective of breaking even financially. This is particularly true when it is considered that the Department has an advantage over its competitors of not needing to incur selling or promotion expenses, nor to realize a profit and pay income tax. However, no printer should be permitted to compete for printing orders unless he has the modern equipment and skills, which are essential, and a record of satisfactory performance. Stringent penalty clauses should be incorporated into all contracts and strictly enforced.

Present costing practices can be put on a rational basis only if the full costs of the Bureau's operations are financed through a revolving fund, not just material and labour costs as at present. This method of financing is particularly appropriate to operations of a self-sustaining nature; it also permits the application of those accounting practices, including accrual accounting, which have been found to best meet the requirements of management in commerce and industry.

A revolving fund is established initially by advancing moneys out of the Consolidated Revenue Fund equal to the total working capital requirements of the Printing Bureau at any one time. Expenses are paid out of the fund; sales are billed to the departmental customers; and revenues, when received, are available for further expenditure. At all times the fund is kept intact, being represented by cash, accounts receivable and inventories. The operating profits may be retained if the additional working capital can be usefully applied, or else may be transferred to general budgetary revenues; losses must be reimbursed through parliamentary appropriations unless earnings previously retained are adequate to absorb them and to maintain the fund at its required size.

This system of accounting places full responsibility for operations on the senior management of the Printing Bureau and, given sufficient authority and flexibility, they can be held fully accountable for results. Management and staff should have no employment security beyond that earned by efficient performance. Parliament would receive all necessary information if a budgetary forecast of proposed transactions through the revolving fund were presented when the Estimates are tabled, and operating results were reported subsequently in the Public Accounts.

We therefore recommend that: 1 All costs of the printing operations of the Department of Public Printing and Stationery be financed through a revolving fund.

- 2 Costs applicable to the printing operations and now borne by the budgets of other departments and agencies be included.
- 3 Rental costs for accommodation be based on an economic rent for facilities of an appropriate nature.

FIELD UNITS

Before considering the implications of these recommendations for the present departmental form now governing the printing operations of the Bureau,

consideration is given to the field printing units. These twenty-seven field units, in Ottawa and across the country, provide departments and agencies with printing services beyond the capacity of departmental duplicating equipment. Agencies served are generally satisfied with the service provided, although some would like quicker deliveries.

The centralization of control over these units in the Department of Public Printing and Stationery has produced significant economies. Cost comparison between units has introduced an element of competition; cost controls and improved equipment and processes have resulted in productivity increases that have more than off-set increases in wage and other costs in the past decade. Generally the costs of these field units, after taking into account costs not now allocated, compare favourably with quotations obtained for similar work from the printing trade. Further improvements through use of work measurement techniques and improved supervision can produce additional economies.

Direction and control over the twenty-seven units require improvement. For example, forms to be used across the country, which are more suitable for volume production at the main plant in Hull, are at times being produced in the branches on less efficient equipment. Appointment of regional managers would improve control where it is needed, while conversely, the supervision within each printing unit, which now appears to be excessive, could be reduced.

The favourable results achieved by centralizing control over these units indicate that further benefits might be derived if units still operated by other departments were brought within the common jurisdiction. These facilities could then be utilized on a wider variety of tasks but, if warranted, the units could continue to be located where they would be most convenient to departments now operating them.

We therefore recommend that: All printing units of departments and agencies, not now under the authority of the Department of Public Printing and Stationery, be examined with a view to centralizing direction and control.

FORM OF ORGANIZATION REQUIRED

The original legislation recognized the industrial nature of printing, but subsequently the Department of Public Printing and Stationery has been moulded more and more into the standard departmental form. Some industrial or operat-

ing activities undertaken by the government in the last twenty years have been excepted from the detailed rules and regulations centrally prescribed to govern the financial, personnel and administrative requirements of departments. The Printing Bureau is not amongst these exempted agencies. The failure to delegate adequate authority to departments concerned with policy-making and other primary functions of government is in itself serious and is criticized elsewhere in your Commissioners' reports, but it is even more lamentable when considered in the context of an operating activity such as printing. To a major extent these centrally imposed regulations hinder effective management of an industrial operation; moreover, having a captive market where customers are required to utilize services and to pay whatever is billed dampens management's incentive to be competitively efficient.

Existing financial rules and regulations are patently unsuitable for a printing operation. Changes have already been recommended to facilitate the development of an accurate and complete set of accounting records, to permit expenditures to be adjusted to changing revenues, and to recognize the effect of fluctuating inventories on cash requirements. Similarly, a competitive printing operation cannot bear the load of a duplicate set of accounts. The Comptroller of the Treasury maintains a set of accounting records to ensure that the appropriations are not overspent, while the Department duplicates almost every record in order that its management may have the financial information required to manage effectively.

Although the wages of the printing trades are related to rates set for similar work in Montreal and Toronto, the employees of the Printing Bureau are almost indistinguishable from civil servants generally. Salaries of supervisory and non-trades personnel conform mainly to those of other government departments, not to parallel conditions in the printing industry. Recruiting procedures generally require interviewing an excessive number of applicants, without adequate emphasis on the urgency and the special skills needed in an industrial activity such as printing. The job security enjoyed by government employees creates obvious difficulties in maintaining the status and discipline of supervisory employees. Changes in the total authorized personnel take too much time to effect, and the Printing Bureau is unable, under the present system, to adjust its work force to varying workloads.

Your Commissioners make recommendations in the reports in the "Management of the Public Service" volume to remedy many of the inadequacies of the government's administrative procedures. Even greater freedom is necessary in this industrial operation. Few matters of policy will ever arise which require the Executive's decision, and those that do, such as the selection of the Director and Superintendent of Printing, the assessment of his per-

formance and his removal, whenever necessary, as well as general control over capital, operating and cash budgets, are not of a detailed day-to-day nature.

The organization chart (Exhibit 2) illustrates that most administrative functions common to industry already form part of the Department's internal structure. At the same time the Department of Public Printing and Stationery has many other functions and responsibilities which detract from, if not conflict with, the operation of printing on a normal industrial basis.

We therefore recommend that: The Printing Bureau be operated as a separate industrial activity under the authority of the Director and Superintendent of Printing.

3

THE QUEEN'S PRINTER

HIS FUTURE ROLE

The foregoing chapter, proposing a separate organization for the Printing Bureau under the management of a Director and Superintendent of Printing, has made no reference to the future role of the Queen's Printer. This officer, as head of the Department of Public Printing and Stationery, is now responsible for providing both printing and publishing services. These two functions are often found similarly linked in commerce. Nevertheless, printing is essentially an industrial operation, whereas publishing demands a variety of talents and is confronted with problems quite different from those affecting printing.

Many public servants are occupied doing research, compiling statistics, analyzing problems, the results of which are of public benefit only if communicated to others. Simply to print does not guarantee that it will be read. The true demand for a publication will not be realized unless the style attracts attention, potential readers know of its existence, and copies are made conveniently available. Without the publisher, the author may have limited success in supporting departmental objectives.

Publishing is generally defined as the whole process of selecting and editing the material, of arranging for its printing and binding, and finally of promoting its ultimate sale. However, there is a key difference between the role of a commercial publisher and that of a government publisher which must be recognized. The former, because he normally takes the financial risk of promoting the publication, usually determines whether it will be printed. In government, by contrast, few publications are, or should be, promoted on com-

mmercial grounds alone. Publications are printed to further the programmes or objectives of a department or agency, and the originating department, as author, in this case pays most of the cost, thereby leaving it with the ultimate decision as to whether to print or not. The publisher's role in government is to estimate the potential market, to provide technical assistance before and during production and to assist the department in achieving the best possible distribution.

In 1951 an interdepartmental Committee on Publications was established "to examine in consultation with departmental officials each publication, book, periodical, pamphlet and report prepared, published and/or distributed under statutory or executive authority or administrative discretion and report thereon to the Treasury Board with respect to the essentiality, necessary contents, quantity and distribution". This Committee has been largely ineffectual and has not met in the past three years. Obviously this is not the answer to the problem of controlling the printed output of departments.

On the other hand, the number of titles published has been increasing at the rate of ten per cent per annum. Too many publications or a bewildering array of publications, hinder, rather than facilitate, effective communication of useful information. However, any approach to control, to be effective, must start by assessing the value of the departmental programmes giving rise to the publications. Effective budgetary control on a programme basis is outlined in your Commissioners' report on *Public Information Services*.

Departments, however, can benefit from expert assistance in planning, preparing, printing and distributing their publications. A central repository of this expert advice is more likely to lead to the best form of publication and the best means of distribution, both commercial and free. Departmental authors have varied talents, but not necessarily those of a publisher. Furthermore, someone must catalogue, stock, and sell publications to make them readily available to the potential reader. At present, few even within the government know what a storehouse of information the government has available, and often do not know how or where to find it.

Your Commissioners believe that the Queen's Printer would have greater impact on publishing practices throughout the public service if he were released from his operating responsibilities as the government's printer. As publisher, he must transcend departmental interests. As Queen's Printer, he cannot be expected to ignore the requirements of his printing plant in favour of the interests of the departments being advised. A number of new responsibilities are suggested in the report on *Public Information Services*, which further enhance the stature of this office and require that its incumbent be a consultant to all departments, not the manager of a department with large produc-

tion responsibilities. Furthermore, the publishing requirements of Parliament demand exceptional service. Therefore, this officer must be given the status and independence which will enable him to serve the joint needs of Parliament and the departments of government. To reflect the change proposed it would be appropriate to change the present title of this office to that of Queen's Publisher.

We therefore recommend that: A new office, with the title of Queen's Publisher, be created with responsibility for publishing all books and publications issued by order of either both Houses of Parliament, or by any department of the government, and with no responsibility for operating the Printing Bureau.

METHODS OF DISTRIBUTION USED

Most publishing responsibilities of the Department of Public Printing and Stationery are centred in the Publications Branch; these functions would remain with the Queen's Publisher. The Branch interprets its role to be more than that of warehousing and distributing government publications. The Branch shares costs to the extent of fifty per cent of the selling price of those copies which it orders for sale through its own facilities. Funds are voted directly by Parliament to the Department of Public Printing and Stationery for this purpose, and all revenue from sales is deposited in the Consolidated Revenue Fund. The Branch has been active in sales promotion: in 1951 sales were \$304,113 and ten years later \$1,169,135.

The promotion of government publications is accomplished through the following services provided by the Publications Branch:

- Official catalogues and price lists are compiled and issued. Daily lists of new publications are prepared, together with summaries each month and year. Special catalogues of the publications of individual departments, and bulletins on selected publications, are also circulated.
- Sales are made through government-operated bookstores in Ottawa, Toronto and Montreal, through regular book dealers and through mail orders.
- Free distributions are made to designated depository libraries, and to persons and institutions (approximately 1,400) entitled to receive them free of charge under statutory and executive authority. The Branch also maintains mailing lists for individual government departments and agencies and mails publications for them on request.

The principal stocks of government publications are kept by the Publications Branch. Some departments complain that they do not receive from the Branch adequate information, including inventory and sales reports, to permit re-orders to be placed before stocks run out. The records of stocks which are maintained need improvement, not only to remedy this situation, but also as a means of controlling and reducing the substantial write-offs of unsold publications. The quality of the record-keeping or the control over stock is unsatisfactory, for numerous adjustments are required to bring the records into agreement with the stock.

SALES OF PUBLICATIONS

Sales of government publications through commercial booksellers are limited. The 4,000 titles issued annually have limited customer demand and, since individual publications have a short life-cycle, few booksellers stock a complete or truly representative selection of publications. Furthermore, the low selling price, the small trade discount of twenty-five per cent allowed, the absence of normal credit terms and allowances on unsold books, eliminate the bookseller's incentive to promote sales of government publications.

The contacts of commercial booksellers with the reading public and their marketing experience cannot be readily duplicated by the government. To encourage distribution of government publications through these commercial channels, higher discounts, say forty per cent, should be allowed on all books, with even higher margins on the low-priced booklets. Credit terms and return provisions should equal those of commercial publishers. Special incentives should be given to selected booksellers who agree to devote a specified amount of counter and shelf space to government publications, by appointing and advertising them as official agents.

Nevertheless, despite any encouragement that can be given to commercial booksellers, there will be need for government-operated bookstores in large cities where the demand for government publications can be profitably cultivated. This is demonstrated by the patronage received by the stores opened in recent years in Ottawa, Toronto and Montreal.

Government bookstores should be expected to operate on a sound financial basis by requiring them to budget and pay all costs out of revenue, as does the private bookstore. Sales in excess of forecasts do not by themselves prove that management is sound. At present, floor space tends to be poorly utilized and the recruiting and training of staff is still open to criticism—the shops have not yet achieved a professional standard. In addition, the present bookstores could offer wider services to the public, including small reference librari-

ies and centralized sources for the published material of all departments, not only those required to use the Department's printing facilities. Dominion Bureau of Statistics publications and Mines and Technical Surveys maps should be sold from the one location.

- We therefore recommend that:*
- 1 Sales of government publications through commercial booksellers be promoted by increasing sales discounts and by introducing credit, return and other privileges equal to those offered by commercial publishers.
 - 2 Commercial booksellers, agreeing to stock a specified quantity of government publications, be designated and promoted as official agents.
 - 3 Bookstores be operated by the government only where demand is adequate to permit operation on a sound financial basis.

FREE DISTRIBUTION

Government publications distributed without charge far exceed those sold. Besides the free distribution to the officially approved list, originating departments are permitted to distribute their publications in answer to enquiries and for promotional purposes. Various methods are used to effect this distribution, but most publications are sent through the mailing services provided by the Publications Branch. The Branch sent out over 57,000 bags of mail in 1960-61, the cost of the service being estimated at \$100,000, not including the value of postage provided by the Post Office without charge.

The benefits of this type of distribution are seldom determinable. Departments are not necessarily right in deciding that free distribution is vital to and effective in promoting a departmental programme. The public are generally willing to pay a moderate price for what they expect will be worth reading, whereas a free publication may be regarded as not worth very much. The centralized distribution service provided by the Publications Branch has obvious advantages, but the failure to charge departments for the services rendered, including the substantial postage bill, hardly encourages departments to approach free distributions with caution. Moreover, uncontrolled and excessive distribution of government publications, without charge, may suc-

ceed more in creating a public image of inefficiency in government administration than in achieving the departmental objectives.

FINANCING OF GOVERNMENT PUBLICATIONS

Many departments originating publications question the validity of the pricing practices now followed. Many inconsistencies were referred to, although generally prices are low. Little differentiation is made between the prices of specialized publications prepared for the benefit of business and industry (where full price would be of little concern if the publications have a legitimate value) and those designed to achieve the widest distribution in order to promote a desired goal, e.g., a book on fish recipes prepared to encourage consumption of Canada's fishing products. Selling prices, at the most, cover only the press and binding costs of the publications; overhead, editorial and composition costs are met out of parliamentary appropriations.

Estimated revenues and direct expenditures on government publications by the Department of Public Printing and Stationery for the 1961-62 fiscal year are as follows:

	<i>Revenues</i>	<i>Direct Expenditures</i>
	\$	\$
Distribution of official documents	—	597,360
Printing and binding official publications for sale and distribution to departments and the public ..	1,200,000	950,000
Printing of <i>Canada Gazette</i>	122,000	139,000
Printing and binding the annual Statutes	22,500	35,000

These expenditures, of course, do not include the substantial costs incurred by the departments originating the publications, nor overhead costs of the printing plant absorbed by other appropriations.

The present arbitrary sharing of the cost of publications sold by the Publications Branch, based on fifty per cent of their selling price, seldom results in the originating department recovering its costs. The lower the price the greater the proportion of the publication's cost which must be paid by the originating department and the less by the vendor. However, since all revenue from sales is deposited in the Consolidated Revenue Fund, the originating departments show greater interest in circulation than in recovering costs through sales.

A preferable method of financing would be to have the full costs of the publications borne by the budgets of the originating departments. Sales proceeds should be credited back to the originating departments, after deduc-

tion of discounts and selling commissions, including a commission of, say, forty per cent to the government-operated bookstore to cover its costs. Sales proceeds in response to mail orders should be apportioned in the same manner. This method of allocating costs and revenues would give both the originating and the selling department incentive to establish a selling price which would achieve maximum recovery of costs without unduly diminishing the volume of sales.

Other services provided by the Queen's Publisher should be billed and recovered from the budgets of the departments benefitting from the services. Thus, the true costs of publications would be known, and more effective utilization of these services would be encouraged.

We therefore recommend that: 1 The full cost of government publications, including the cost of services provided by the government publisher, be borne by the department or agency originating the publication.

- 2 Prices be established so as to achieve maximum recovery of costs without unduly diminishing the volume of sales.
- 3 All revenue be credited to the originating department or agency, except for appropriate sales discounts to the bookseller, either government or commercial, selling the publication.

PROCUREMENT OF PRINT

Publishing, defined previously, includes the responsibility of arranging for the printing and binding of the works to be published. Although the Publications Branch now advises the originating departments on their requirements, it plays little part in deciding where the work will be carried out.

Currently all requisitions from departments or agencies for printing go directly to the Production Branch. The Branch selects those jobs which best fit into its own capacity and scheduling, and prepares specifications and passes all other jobs on to the Procurement, Purchasing and Stores Branch for procurement from the commercial printing trade.

Tenders are called on all jobs over \$1,000 and the lowest price is generally accepted; jobs under \$1,000 may be assigned to a printer without tendering. The smaller jobs, although representing less than sixteen per cent of total

print purchases, totalled over \$780,000 in the year reviewed, and represented over eighty-five per cent of all contracts placed.

The procedure for procuring print has a number of fairly obvious faults. First, leaving the initial decision to make or buy to the Production Branch places the interests of the service organization ahead of the departments and agencies being served. This procedure should lead to the optimum utilization of the Printing Bureau's facilities. In practice, it does not, because the Bureau is assured of a captive market and need not press for maximum efficiency or service in order to retain its customers.

Secondly, the tendering procedure often leads to a product of unsatisfactory quality, where the lowest price governs without due regard for the capacity and competence, or the quality of work performed previously by the printers given the contract. Similarly, the quality of the small jobs suffers when contracts are not put out for tender and are placed with small and less efficient printers. Furthermore, political factors now may influence the selection of printers. Classification of printers based on the quality of printing jobs previously undertaken is inadequate and, therefore, contracts for prestige or specialized work may be let to printers without the necessary capacity and equipment. As a result, contracts go to a wide variety of printers, not necessarily to the efficient firms. Contracts for printing in 1959-60 had a value of \$5,709,931 and these were distributed among 539 printers.

Finally, print procurement is a specialized type of procurement. The buyer must be fully qualified technically to draw up specifications, to assess quotations, to gauge the quality of the work performed and to negotiate with the printing trade as printers rarely produce a standard product, buying can never be reduced to price considerations alone. Furthermore, the workload of printers fluctuates widely, and printers vary greatly in their size, capabilities and need for work. The government's requirements also vary from time to time and are seldom distributed evenly over the year. Therefore, the print buyer requires a sense of timing which can come only from long and varied experience in the industry. Unfortunately, the buyers of the Department were found to have had inadequate purchasing experience, generally having been promoted from divisions of the Department concerned with other responsibilities.

Print procurement should be a responsibility of the Queen's Publisher. As an independent middleman, he should advise on the printing orders which, in addition to parliamentary work, would most benefit by being printed within the Printing Bureau. Such work, up to the maximum suggested previously, should be routed directly to the Printing Bureau without competitive tenders. Included would be those urgent and small jobs which neither warrant the cost nor can brook the delay inevitable in the tendering process. Similarly, small

jobs outside Ottawa might be placed directly with the most convenient field unit of the Printing Bureau.

All other printing orders should be procured through the facilities of the Queen's Publisher. His staff would serve departments by establishing specifications, calling tenders, awarding the contract, and supervising completion of the printing. The Queen's Publisher should be given responsibility to classify, on an objective basis, those printers eligible to be invited to tender. His goal should be to direct the printing to the source most likely to serve the needs of the originating department, having regard for both price and quality.

The Queen's Publisher should enjoy more latitude than is now the case in awarding contracts. For example, he should be permitted to call for tenders on a term-of-years basis where a repetitive publication or repeat orders might otherwise receive less satisfactory and more costly service. Similarly, where the Printing Bureau lacks equipment to quote on a job and unsatisfactory or non-competitive quotes are being received from the trade, he should be empowered to negotiate contracts for a sufficient number of years to warrant the Bureau investing in the additional equipment.

We therefore recommend that: The Queen's Publisher be made responsible for procuring all print required by Parliament or by any department or agency of government, where responsibility is not otherwise specifically allocated.

RELATION WITH PROPOSED DEPARTMENT OF PURCHASING AND SUPPLY

A large part of the procurement now forming part of the Department's responsibilities bears no necessary connection with either printing or publishing. The procurement of office machines, stationery and the servicing of office equipment need not continue to be the responsibility of either the Printing Bureau or the Queen's Publisher. In fact, the Act in 1886 stated that responsibilities for purchasing were only to remain with the Queen's Printer "until a general purchasing agency is established". Your Commissioners recommend in the report on *Purchasing and Supply* the establishment of a common procurement agency, to be called the Department of Purchasing and Supply, for purchasing items of this nature.

Printing and publishing are only two of the many supporting services required by government. For historic reasons that have been noted, these services have been hitherto combined in one agency. It is now proposed that the two activities be separated, with a Superintendent of Printing placed in charge

of the Printing Bureau and responsibilities for publishing handled by a Queen's Publisher. Since both officials are concerned with two aspects of common procurement, they should both report through the proposed Department of Purchasing and Supply. The special and important responsibilities to be vested in the Queen's Publisher make it advisable that he report to the Minister of the proposed department. The Superintendent of Printing, whose responsibilities will be primarily of an operational nature, should more appropriately report to the Deputy Minister of the same department.

- We therefore recommend that:*
- 1 Responsibility for the procurement of office machines, stationery and forms, and the servicing of office equipment, be transferred to the proposed Department of Purchasing and Supply.
 - 2 The Queen's Publisher and the Superintendent of Printing report respectively to the Minister and Deputy Minister of the proposed Department.

10 THE “MAKE OR BUY” PROBLEM

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 10: THE “MAKE OR BUY”
PROBLEM

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	315
1 THE NATURE OF THE PROBLEM	317
Role of Private Enterprise	319
Inhibiting Influences	319
Personnel Policies	319
The Nucleus Argument	320
Purchasing Procedures	321
Faulty Cost Information	321
Responsibility for Secondary Industry	322
Means of Control	322
2 WORKSHOPS	325
National Research Council	326
Department of Mines and Technical Surveys—Mines Branch	327
Department of Transport	328
Marine Services	328
Air Services	329
Other Departments and Agencies	329
3 REAL PROPERTY MAINTENANCE	331
Department of Public Works	331
Cleaning and Building Maintenance	331
Dredging	332
Department of Northern Affairs and National Resources	333
National Capital Commission	335
Department of Veterans Affairs	336
Other Departments and Agencies	336

	<i>Page</i>
4 MISCELLANEOUS SERVICES	337
Department of Mines and Technical Surveys	337
Maps	337
Land Surveys	338
Department of Transport	339
Marine Services	339
Department of Veterans Affairs	339
Other Services	340
5 FOOD SERVICES AND ACCOMMODATION	342
Food Services	342
Department of National Health and Welfare—Civil Defence College	343
Accommodation	343
Central Mortgage and Housing Corporation—Laurentian Terrace	343
Atomic Energy of Canada Limited	344
Other Departments and Agencies	344
6 TELEVISION AND FILM	345
Canadian Broadcasting Corporation	345
Staging of Television Programmes	345
Video-Tape and Film Production	346
National Film Board	347
7 SPECIAL CORPORATE ACTIVITIES	349
Polymer Corporation Limited	349
Eldorado Mining and Refining Limited	350
8 COMPETITIVE OPERATIONS OF THE DEPARTMENT OF NATIONAL DEFENCE	352
Introduction	352
Workshops	354
Royal Canadian Navy	354
Canadian Army	356
Construction and Maintenance of Real Property	357
Supporting Services	357
Transportation	358
Conclusion	359

ACKNOWLEDGEMENTS

A Project Group, under the direction of Frank Willcox, C.A., F.C.I.S., Partner, *Price Waterhouse and Co.*, Montreal, conducted the field investigations for this report. A number of project officers collaborated on the inquiry, and your Commissioners wish to acknowledge the assistance received from those mentioned hereunder:

James I. Carmichael, P.ENG., *James G. Harding and Associates*, Toronto

Adam E. Foster, C.A., *Price Waterhouse & Co.*, Ottawa

Albert H. Garnes, *Price Waterhouse & Co.*, Ottawa

Robert G. Heasman, C.A., *Price Waterhouse & Co.*, Ottawa

Alan D. Stickler, C.A., *Price Waterhouse & Co.*, Toronto

A. A. Sterns, M.COM., PH.D., on loan from *Department of Finance*, Ottawa

A number of submissions bearing on this topic were received from individuals and organizations: these have been carefully considered and are noted in our final report.

Your Commissioners in acknowledging the assistance and advice received from the above-named persons, dissociate them from any of the findings and conclusions appearing in this report; for these, your Commissioners assume full responsibility.

1

THE NATURE OF THE PROBLEM

Most activities and types of employment common to commerce and industry find their counterparts in government. The government operates power plants, cold storage warehouses, grain elevators, nurseries, parking lots, asphalt plants, printing plants and sawmills. Public servants repair everything from shoes to ships, from automobile tires to aircraft, from respirators to air conditioners. Government departmental and agency shops across Canada employ blacksmiths, carpenters, draftsmen, electricians, instrument makers, stonemasons, painters, pipefitters, plasterers, plumbers, sheet-metal workers, tinsmiths and welders. Groups of public servants are provided with food through government-operated bakeries, groceterias, cafeterias, canteens and lunch counters. For the benefit of its own employees the government operates cleaning plants, laundries, retail stores, tailor and cobbler shops as well as hotels, motels and hostels to house them. The government not only surveys and maps the terrain of Canada, but alters it by landscaping, building roads and dredging channels. Less usual activities such as baitfreezing, fumigation, signwriting, and aerial photography add to the diverse tasks performed by public servants.

All these activities, and others, result in expenditures by the Government of Canada on goods and services of almost \$3 billion—over eight per cent of the total spent throughout Canada. Many of these goods and services are “bought” in the form ultimately required; others are obtained in a raw or unfinished state and “made” to meet the government’s needs; others are acquired in almost every intermediate stage.

The purpose of this inquiry has been to scrutinize those acquisitions of

goods and services by government which are "made" rather than "bought". No attempt is made in this report to assess the actual need for the goods and services or to question the purposes which they are designed to serve. This inquiry has been directed, rather, to assessing the degree to which effective execution of government policy may be impeded or impaired by unnecessary proliferation of secondary activities.

For the purposes of this report a secondary activity means one which is subsidiary to the direct objective of a policy or a programme and could, in normal circumstances, be carried out by non-government contractors or vendors. Simple illustrations are a repair shop to service government vehicles or a sheet-metal shop to manufacture navigational buoys. Such activities usually entail investment in plant, specialized or technical supervision, and represent an additional administrative burden on departments and agencies which conduct them.

It should be apparent that each venture into a secondary field of activity by government is attended by added responsibilities and increased complexity of management. On these grounds alone such involvement should be avoided to the greatest possible extent. But cumulatively these secondary activities of government can prejudice the position of the private sector through the withholding of a volume of business which could stimulate development and initiative. A not unimportant incidental benefit is that the government itself stands to gain from the tax revenues derived from the profits of those industries which obtain government orders.

The dimensions of the problem are significant. A partial survey identified at least fifty million dollars worth of goods and services each year now being "made" by government within its own facilities, which could be "bought" from private enterprise. A transfer of this work to suppliers outside the government should facilitate, rather than jeopardize, the attainment of the primary goals of departments and agencies, and result in important economies.

The diseconomies of excessive size have long been recognized in commerce and industry. The government is not unique in having to control and limit its growth. Improved forms of organization and new methods of control have accompanied the growth of the large commercial and industrial corporations. The reports in the "Management of the Public Service" volume recommend many changes in present procedures designed to improve management of the public service, despite its size, by new methods and techniques of control. Other reports, concerned with organization, make recommendations designed to shorten the chain of command and reinstate some of the control that once was possible, when government was small and its responsibilities few.

Throughout this and other reports will be found proposals for greater utilization of external resources by the federal public service. These are based on the assumption that the prime concern of government relates to those matters of substance which cannot be delegated to others. Unless the growth of non-essential secondary activities is controlled, there will be an ever-increasing expansion of peripheral distractions, each one leading to others, until the essential activity, the real objective or target, becomes obscured by the size and character of the subsidiary activities. These subsidiary and peripheral activities either sap the time and energy of senior public servants or else they, themselves, are neglected and poorly administered.

ROLE OF PRIVATE ENTERPRISE

Parliament settles public policy by enacting the necessary legislation. The ministers responsible for government programmes look to their departmental officials to carry most of the responsibility for determining the means by which the programmes are to be administered. It follows that decisions to use the facilities of private enterprise or, alternatively, to acquire plant and hire staff if the goods or services are to be provided internally, are made by or on the advice of public servants.

The government can often, although not always, obtain its requirements from private enterprise. In choosing this alternative, the government needs personnel to plan, to establish specifications, to negotiate and contract with suppliers, and to inspect the products supplied. However, the staff required for these purposes are few compared to the numbers involved when the government undertakes the activity itself. Furthermore, when it contracts out, the government is not involved, to the same degree, in fixed commitments in the form of staff, buildings, equipment, etc., which cannot be disposed of or adjusted to changing requirements without great difficulty.

Essential government responsibilities can be extricated from the present maze of diverting and unimportant details of administration only if maximum use is made of non-government facilities. Therefore, decisions to "make" rather than "buy" should only be taken on the basis of conclusive evidence of the unavailability on reasonable terms of the goods or services from outside the government.

INHIBITING INFLUENCES

Personnel Policies

A substantial number of senior officers in the public service prefer to meet departmental needs with self-provided services. This may be attributed, in

part, to motives of self-interest, including consideration of such matters as opportunities for advancement as well as the challenge of new undertakings. There is a not unnatural inclination for the more aggressive public servant to bring under direct control all the elements necessary to support operations and, in this context, contracting out is thought to limit operating freedom and flexibility. Where possibilities of promotion may depend, or be thought to depend, upon the number of public servants being supervised, a direct incentive exists for "empire building".

The Nucleus Argument

Reluctance to resort to external sources is supported by the contention, frequently encountered amongst civil servants, that a nucleus or core of men and facilities must be available to undertake a portion of each activity in all its details. This argument runs as follows:

- The staff of the department or agency must be practised in the undertaking they are called upon to supervise so that they can evaluate the techniques and the quality of workmanship, and keep abreast of new developments.
- The contracting department or agency must have its own measures of performance available to establish norms and costs, against which it can assess the prices and quality of goods produced and services rendered by suppliers.
- The continuity of essential operations must be assured in the event that private enterprise cannot or will not continue to provide the goods or services required.
- Sole reliance on outside suppliers leaves the government unprotected from possible discriminatory pricing tactics.

These propositions have been generally accepted by public servants as not unreasonable justifications for an operating nucleus, but such a nucleus is by no means the only way of safeguarding the government's position as a buyer. Proper recruiting and training programmes can provide the skills necessary to supervise external suppliers. Competitive bidding, contractual safeguards, and the distribution of contracts to more than one supplier should provide better protection against the other potential abuses.

Moreover, as illustrated in ensuing chapters of this report, there is always the danger that, in creating the operating nucleus, equipment, plant and staff in excess of need will be acquired. Government departments and agencies have too often obtained buildings, machinery and equipment without careful

consideration of the appropriate size of the nucleus. It is then not difficult to contend that the capacity of the facilities determines the appropriate size of the nucleus. Further expansion of the activity is easily justified by the claim that efficient management and economy dictate full, or almost full, utilization of the facilities. Facilities in excess of actual need encourage a growth through "make-work" out of keeping with the intentions and objectives for which the activity was brought into being, which is not conducive to efficiency and may effectively close the door to participation by private enterprise. Similar expansions of nuclei often occur in order to reduce unit costs by taking advantage of new equipment and other economies. Thus, without constant control, the government nuclei are likely to grow continuously and inordinately.

Purchasing Procedures

Departmental purchasing policies, established under various regulations, also act as deterrents to the use of outside suppliers.

Where the goods or services required represent insignificant expenditures, orders can be placed without a firm-price quotation or without tendering. However, orders of any size require that tenders be called, and departments must go through a complicated procedure of estimating, preparing specifications, negotiating with prospective suppliers, competitive bidding, receiving the approval of higher authorities and only thereafter placing the order. As a result, excessive and costly delay may occur before the requirement is satisfied. The outside supplier, in turn, faced with these complicated procedures and lacking assurance that there will be continuing business, may show little interest in supplying the requirement.

While present purchasing procedures are undoubtedly a deterrent to a greater use of outside facilities, it is interesting to observe that almost all goods and services described in this report are in some departments being acquired from outside sources and in others supplied by the department or agency itself.

In contrast to this mixed performance, there are in private organizations generally accepted policies for deciding whether to make or buy. Sub-contracting is an important part of Canadian industrial production and in many organizations, not necessarily the largest ones, substantial portions of their requirements are normally contracted out. In the trailer industry, for example, more than forty per cent of the finished product is produced by sub-contractors.

Faulty Cost Information

Your Commissioners' report on *Financial Management* sets forth the characteristics of the accounting system of the Government of Canada that distin-

guish it from industrial and commercial systems. Government accounts are kept on a cash, as opposed to an accrual, basis and no clear or useful distinction is made between current and capital expenditures. Little or no account is taken of extra-departmental costs such as rent, maintenance, heating, cleaning, water, light, power or employees' fringe benefits (superannuation, unemployment and health insurance, and accident compensation); no charges are made for such services as mail and telephone. Moreover, no allowance is made for the depreciation of capital facilities; no interest cost is computed for the use of capital or working funds; no allocation is made of grants in lieu of municipal taxes; and, of course, no account is taken of income taxes.

In brief, comprehensive costs to measure the efficiency of government operating activities are not available, except in isolated cases. Nevertheless, many public servants appear convinced that departments produce goods and services more cheaply than private enterprise. They ignore the fact that true costs exceed the figures provided by their accounts by fifty per cent or more. Despite the absence of true cost figures, the cost savings are often cited to support a decision to "make" rather than "buy".

RESPONSIBILITY FOR SECONDARY INDUSTRY

The recommendations of this report are based primarily on your Commissioners' belief that a way to control the size of government is by contracting out, wherever possible, selected peripheral activities. Moreover, the government has a continuing interest in the economic well-being of commerce and industry in Canada, and many government programmes such as incentive tax relief, development and trade promotion programmes, fiscal and monetary measures are undertaken to this end. Since the government's total purchases probably make it the largest single market for the products of Canadian enterprise, "make or buy" decisions should not be framed without concern for the welfare of present or potential suppliers. The government, in meeting certain of its own needs from its own resources, may deprive the outside suppliers of a significant market, thereby discouraging the creation or growth of secondary industries.

MEANS OF CONTROL

The key to any effective control of the growth of unessential secondary activities is a close scrutiny of all requests for new or additional staff or facilities. This can be applied most effectively in conjunction with the budgetary review. Such a review, with present methods of costing and budgeting, would scarcely be meaningful. However, recommendations by your Commissioners, designed

to improve budgeting and accounting, point the way to an assessment of government activities by programmes, with each programme in turn divided into segments of operating responsibility. This should make it readily possible to distinguish essential activities from those of a secondary nature. Until the recommended changes have been made, care must be taken to ensure that public servants at all supervisory levels understand the limitations and misleading character of present cost figures.

- We therefore recommend that:*
- 1 The Treasury Board and senior departmental management review all requests for additional staff and facilities to be devoted to the conduct of secondary activities to determine whether the government's new or increased need could not, alternatively, be satisfied by the use of private resources and facilities.
 - 2 Accurate and comprehensive cost analyses be prepared to support all requests of such nature.
 - 3 Periodic cost investigations be carried out in respect of all existing programmes of secondary activity, and departments and agencies be required to show cause why these should be continued whenever non-government sources can supply the goods or services at equal or lesser cost.

The more significant savings and improvement will arise from the effective control of the future growth of secondary activities. Important, however, is the need to deal now with existing examples throughout the government of unwise or unnecessary operations of this kind. In the following pages a number of activities are reviewed, serving to illustrate and amplify the general propositions set forth. In cases where it is suggested that goods or services now provided internally be secured from outside sources, problems will arise in disposing of existing governmental facilities. For this reason your Commissioners limit the scope of their proposals to those activities where, it is believed, existing facilities could be sold or put to alternative uses, or where proposals are presently being considered for their replacement or enlargement. Some proposals can be implemented immediately, while others will take time; but the continuing prejudice to both cost and efficiency, where implementation is delayed, should be recognized.

The examples given should be regarded as illustrative rather than all-inclusive. Moreover, these illustrations of the "make or buy" decision have been limited here, and elsewhere in this volume, to the provision of services required by the government to support its own operating needs. The considerations which should be foremost in reaching the "make or buy" decision are equally relevant when government provides services to the public. Consequently, other reports of your Commissioners on "Services for the Public" provide further illustrations of the central theme of this report.

For purposes of this report, approximately forty activities, common to many departments and agencies, were examined. Activities that present similar problems have been combined under broad headings. Because the Department of National Defence is confronted with special problems, not normally the concern of the civil departments of government, its secondary activities are reviewed separately.

2

WORKSHOPS

Seventeen departments and agencies reported 746 separate units which fall into the general category of workshops, employing a total of 3,438 persons. An analysis—by no means exhaustive—reveals the following occupations and enterprises: armourer, blacksmith, carpenter, stonemason, and tinsmith; clock and watch repair, sheet-metal work, electrical, instrument, machine, radio and television shops, and a sawmill. Varied as these activities are, the shops, collectively, present similar problems.

Some small shops scattered across the government employ a few men to perform maintenance and emergency repair tasks in close support of operating and scientific personnel. Larger facilities are, however, comparable to medium-size industrial shops; they use a wide variety of equipment and skills, with broad variations in the quality and precision of performance required. The comments which follow relate primarily to this second category of shops.

Convenience is one of the reasons given for maintaining government workshops, since specifications for shop work vary from oral or written instructions, through rough sketches, to prints from completely engineered designs or inked linen tracings. Control of quality in government shops is possible with only informal communication between the shop and the person originating the requirement. Much more formal specifications and more rigid quality control are essential where the work is contracted out. Nevertheless, the justification for performing work inside the government cannot rest on the arguments that work specifications are incapable of being clearly defined or that quality control can best be achieved informally.

Except for very simple jobs or for work of experimental or developmental nature, specifications should be clearly and completely defined. But all specifications need not be prepared to the elaborate draughting standards now in evidence in some government workshops. These standards are obsolete in most industrial engineering offices, having been replaced by "simplified draughting" techniques which reduce engineering time by thirty to forty per cent. Clearer and more appropriate work specifications would not only improve the work now being performed in government shops but permit more of such work to be contracted out.

A factor contributing to the reluctance to use non-government facilities is the size of existing government shops. Industry commits space and personnel and invests in shop facilities only if a fairly high degree of utilization (fifty to sixty per cent) is anticipated. Because it is difficult in government to programme overtime or to obtain casual help, supervisors tend to staff facilities to peak-load requirements. Thus, there are instances of significant excess capacity in off-peak periods. While overtime is closely controlled, no system of time-reporting exists to identify off-standard or idle time. Under make-work conditions, the working force—consciously or otherwise—tends to stretch out work to maintain continuous activity.

Job cost records, common to industrial shops, are seldom maintained in government shops. Costs, if used at all, rarely include indirect costs, either fixed or variable; administrative and capital costs are often not known. Fair assessment of outside tenders or prices, as well as effective control of government shop costs, will be feasible only if regular and accurate cost reports are available.

NATIONAL RESEARCH COUNCIL

The Mechanical Engineering workshop has a wide range of skills, services and equipment types and capacities. There are probably not more than twenty equivalent shops in Canada. Nevertheless, although there are exceptions due to the experimental nature or low cost of certain work, practice is to contract out if there is no urgency.

Other workshops of the Council could contract out an increased proportion of their activities to industry, if specifications were improved, costing was more accurate and there was greater freedom to contract. The merit of contracting out in this situation is that the shops are peripheral to the main activities and not so organically bound up with the primary activities that work cannot be contracted out. Moreover, this work by nature tends to fluctuate in volume, making it difficult to sustain a steady and economical workload.

The following table shows the workshops of the Council, and the approximate annual value of work performed internally and that acquired from outside sources:

Table 1—NATIONAL RESEARCH COUNCIL SHOPS

Division	Approx. No. Personnel	Approx. Value of Work Done in 1960-61	
		In Division	Elsewhere
Pure Chemistry	11	\$ 129,500	—
Applied Chemistry	8	91,000	—
Pure and Applied Physics	11	115,000	—
Applied Biology	6	53,000	—
National Aeronautical Establishment	18	153,000	—
Building Research	5	35,000	1,000
Mechanical Engineering....	80	200,000	200,000
Electrical Engineering	34	340,000	110,000
Total	173	\$ 1,116,500	\$ 311,000

The proportion of work of each workshop that could be contracted out varies, but based on a brief survey it is estimated in total to represent an additional \$200,000.

DEPARTMENT OF MINES AND TECHNICAL SURVEYS— MINES BRANCH

The mechanical shops attached to this Branch employ thirty-one machinists, eight electricians, seven carpenters, and twenty-four other employees, occupy approximately twelve thousand square feet of space, and utilize capital equipment estimated at \$750,000. Much of the work done consists of small, fairly urgent projects, together with other work as a "fill-in". There are few specifications, and the information in the cost records is inadequate.

The relationship of the workshops and other divisions within the Mines Branch is unsatisfactory from the viewpoint of optimum utilization of the facilities. The other divisions have the choice of placing work outside or ordering it from the departmental shops. But because no charges are made for work performed for the divisions, the annual Estimates provide no clue as to prospective demand on the shops. In fact, divisional demands are sporadic, increasing noticeably when exhausted budgets preclude outside procurement. For the shops, this situation is a formidable obstacle in planning for a consistent workload.

These deficiencies could be overcome by preparing the Estimates on a programme basis and requiring the research divisions of the Branch to pay for

the services received from the workshops. With better planning and distribution of the workload, the optimum size and capacity of the shops could readily be determined and decisions whether to "make or buy" would be facilitated.

The workshops of the Mines Branch are not used by the other Branches of the Department of Mines and Technical Surveys; nevertheless these other Branches are now contemplating workshops of their own. There should be a consolidation of shop requirements to permit existing shops to meet the increasing needs of other Branches and, at the same time, enable less pressing business, estimated at \$200,000 per annum, to be contracted out.

DEPARTMENT OF TRANSPORT

Marine Services

The ships of the Department of Transport operate from Marine Agencies which also act as supply depots for navigation aids and other items required to service northern localities supplied by water. Ten agencies and several sub-agencies are responsible for maintaining 15,700 aids to navigation (including 3,000 lights, 921 lighted buoys), and seventeen supply and buoy vessels, of which eight are icebreakers. Over 325 public harbours are served. Workshops are maintained in each agency to make minor repairs to the ships and to manufacture and repair aids to navigation.

A large portion of the work in the agencies examined is small in scale, urgent though intermittent and, for these reasons, considered by the public service to be inappropriate for contracting out. In private enterprise, these are usually regarded as sound reasons for contracting out. The Agencies undertake other work as a fill-in activity or for training purposes. Cost data is generally unavailable or inadequate and the work tempo well below industrial standards. Careful control should be exercised over expansion of these facilities. The introduction of proper management techniques and the utilization of these facilities by ships of all civil departments and agencies would promote efficiency, and should also permit the transfer of more work to sources outside the government as the volume of fill-in work is reduced.

The Dominion Lighthouse Depot, attached to the Prescott Marine Agency, employs fifty-four people who repair and manufacture aids to navigation. Possibly ninety per cent of this work, now costing approximately \$250,000 per annum, is not of an emergency nature, no training or security requirements would be jeopardized, and numerous industrial shops are available to compete aggressively for this type of work. The present plant is too large, the equipment obsolete, utilization far from efficient, and the working tempo low.

The Department of Transport should cancel plans to replace these facilities and divest itself of this peripheral activity, with savings not only of money but in administrative distraction.

Air Services

The Department operates in Canada a fleet of thirty-six fixed-wing aircraft and twenty helicopters, and maintains and overhauls these aircraft in its own shops. Such activities are expanding and large new facilities have recently been established at Uplands Airport, Ottawa, for this purpose. The staff of 125 includes ninety licensed engineers. Approximately a hundred of the staff are at the Uplands plant and the remainder at six regional stations of the Department across Canada.

The investment in buildings and inventories is approximately \$3.5 million and the annual operating costs, labour and material only, about \$2 million.

Despite the fact that competent aircraft overhaul facilities are available at a number of points in Canada, the policy of the Department is to fly all aircraft to Ottawa for scheduled overhaul, entailing substantial flight expense and lay-over time for the flight crews. In the case of helicopters, this time represents between 20% and 30% of the total hours flown by such aircraft.

An examination of costing methods reveals serious inadequacies, and calculations made indicate that true costs in the Uplands shops are approximately 35% above prices charged by outside overhaul organizations. This operation is growing: consideration is being given, for example, to adding upholstering and interior cabin refinishing to its activities.

The aircraft overhaul industry in Canada is not large and the loss of this business to government shops is of some significance. In spite of the generous expenditures by government on capital facilities, your Commissioners' view is that the utilization of manpower and facilities is not up to industrial standards, and the cost is substantially greater, apart altogether from the not inconsiderable ferrying costs involved. The Department of Transport should limit its aircraft maintenance and overhaul activities at Uplands Airport to ordinary running repairs. Other uses for current facilities, such as use by the Royal Canadian Air Force should be considered, and periodic overhauls should be contracted out at appropriate locations across Canada convenient to the operating bases of the aircraft.

OTHER DEPARTMENTS AND AGENCIES

Other shops operated by departments and agencies across Canada undoubtedly provide additional opportunities for transfer of work to private industry.

We therefore recommend that: A frequent review be made of all workshop facilities to ensure that:

- 1 New facilities are not established or old ones replaced without thoroughly considering the use of other government shops and outside suppliers.
- 2 Cost accounting, work study and other management techniques are in use to ensure efficient management and accurate measurement of performance.
- 3 Tenders are requested for all work suitable for contracting out.

3

REAL PROPERTY MAINTENANCE

Government activities coming within this category include the operation of asphalt and cement plants, road-building, dredging, landscaping, gardening, the tending of nurseries, painting, pipefitting, plastering, plumbing and general building maintenance. Thirteen departments reported 1,437 units engaged in this type of work, and a total of 6,099 public servants so employed. Because many units are small and quite widely dispersed, much of this work cannot be contracted out. However, there are certain exceptions.

DEPARTMENT OF PUBLIC WORKS

Cleaning and Building Maintenance

The Department of Public Works is responsible for the cleaning, general upkeep and maintenance of some 2,850 buildings with floor space in excess of thirty million square feet. One-third of this total is contained in buildings in the Ottawa area. The cleaning programme is carried out partially by contract (\$1 million) but primarily by departmental staff (\$8 million). There are approximately 2,800 public servants employed (whole or part-time) for this purpose in the Ottawa area alone.

As a result of detailed time and motion studies the Department achieved some economies through the conduct of formal training programmes. The cost of cleaning in the Ottawa area by government employees, however, still remains higher than contract costs. The justifications given for the continued use of departmental employees are that the quality of the cleaning is higher

and that the practice provides a safeguard against excessive contract demands (the nucleus argument). Nevertheless, the number of companies now competing for cleaning contracts is sufficient to provide adequate safeguards as to both quality and price.

The rate of turnover, particularly of male staff, is high, while the female staff consists mostly of older women. Normal attrition is, therefore, sufficiently rapid to permit the extension of contract cleaning without releasing staff. Annual savings in the order of \$1 million are possible.

Dredging

The government is responsible for about ninety per cent of dredging undertaken within Canada. The costs of this public service, designed to improve or maintain navigation channels, and public and fishing harbours, are largely borne by the government. A substantial portion of this work is contracted out. Because the private dredging industry is largely dependent on the government for its market, any increase in the government's plant is likely to have a directly adverse effect on the utilization of existing capacity.

The Department puts forward many reasons for allocating work to its own plant, including the difficulty of estimating quantities for purposes of tendering, the lack of suitable plants in the areas concerned, the inability to schedule precisely, the absence of true competition, and the desire to utilize government plant fully. These influences have contributed to the expansion of the fleet of government dredges which, since 1945, has grown from fourteen to thirty-one. These are operated by the Department of Public Works at locations on the Atlantic Coast, St. Lawrence River, Great Lakes, Lake Winnipeg, Pacific Coast and in the Territories. Dredges have limited mobility and therefore a comparison between the capacity and work performed by both government and industrial dredges on a regional basis is useful (*see Table 2*).

In eastern Canada departmental plant is primarily used on small jobs of limited interest to private contractors. In central Canada little work is contracted out because of the unavailability of suitable commercial plant. However, on the west coast over half the work undertaken is to permit high utilization of departmental equipment. Some of this equipment is new and of a specialized nature with a high capacity and mobility, thus permitting it to cope with emergency situations more expeditiously than the private plant now available. However, the capacity of this new equipment can only be kept fully employed if it is utilized on other work which the private industry can service equally well.

Table 2—ANNUAL SHARING OF DREDGING BETWEEN FACILITIES OF THE GOVERNMENT AND INDUSTRY IN RELATION TO CAPACITY

Approximate Average—1959 and 1960—Cubic Yards Excavated

	<i>Government Plant Capacity</i>	<i>Work Done</i>	<i>Contracted Capacity</i>	<i>Work Done</i>
<i>East Coast and Great Lakes</i>				
National Harbours Board	—	30,500	—	606,600
St. Lawrence Ship Channel....	—	—	—	3,407,300
Public Works	1,370,000	994,100	17,850,000	5,724,000
<i>Central Canada</i>				
National Harbours Board	—	2,600	—	80,600
Public Works	569,000	415,800	100,000	1,000
<i>West Coast</i>				
National Harbours Board	—	—	—	55,000
Public Works	2,035,000	2,148,100	9,300,000	1,367,500
Total	<u><u>3,974,000</u></u>	<u><u>3,591,100</u></u>	<u><u>27,250,000</u></u>	<u><u>11,242,000</u></u>

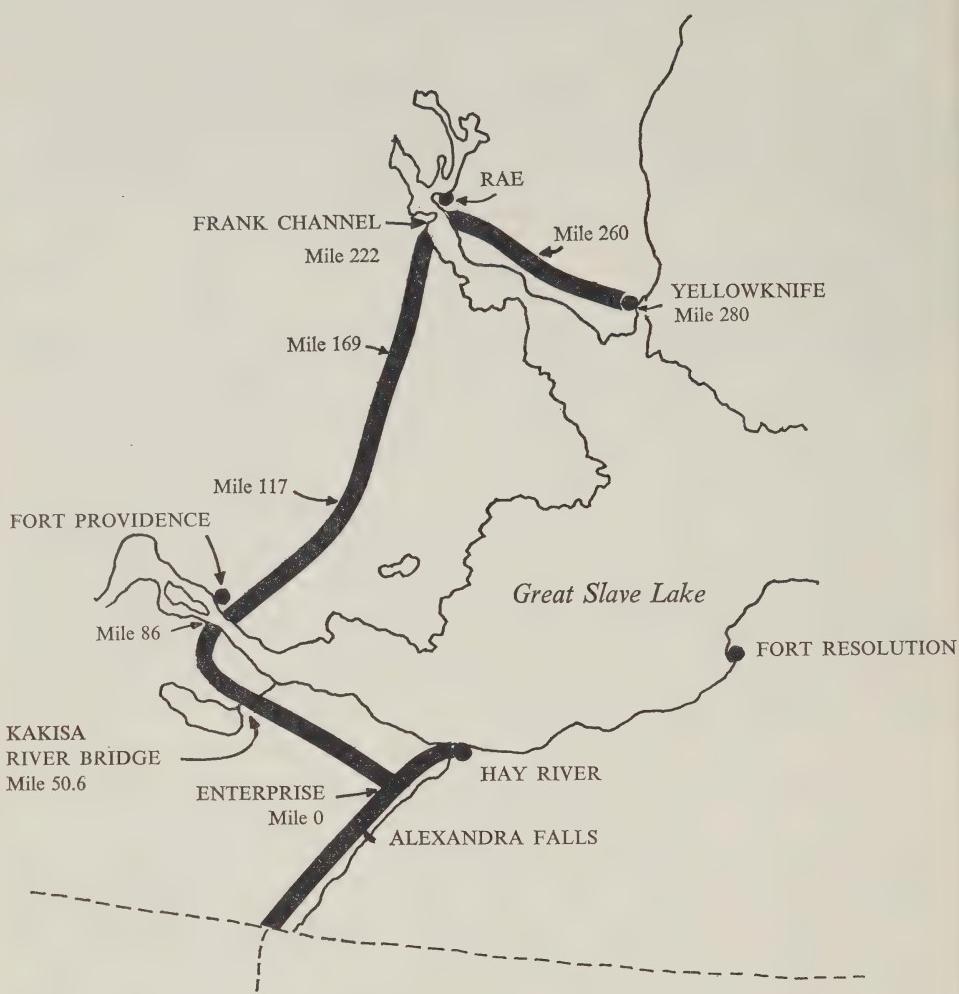
The Department is replacing existing plant, valued at an estimated replacement cost of \$18 million, at the rate of \$1 million per year. Unless this replacement programme gives adequate consideration to the capacity of the private dredging industry, the new, more efficient equipment will further reduce the proportion of dredging being contracted out. Since the government is almost its only source of business, this cannot help but have serious consequences for the private dredging industry.

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

The Department is responsible for maintaining 390 miles of highway running from the Alberta boundary to Yellowknife, with a spur to Hay River (*see Exhibit 1*). Plans envisage additional construction of highways in the Territories at a rate of a hundred miles annually. These roads are generally built by private contractors under the supervision of the Department of Public Works, with the Department of Northern Affairs and National Resources assuming responsibility for maintenance.

In 1960, the Department investigated two alternative methods of carrying out this maintenance. The first was to purchase the equipment, taking on the necessary operators either as continuing or seasonal employees; the second was to continue the previous procedure of renting the equipment with the operators supplied by the contractors. There is no indication that the Department considered contracting out full responsibility for maintenance. The Department's study concluded that an annual saving of \$86,000 would result

Exhibit 1—MAP OF MACKENZIE HIGHWAY SYSTEM



from owning rather than renting and the equipment was accordingly purchased.

This study illustrates graphically the problems faced by senior authorities in reviewing proposals for additional staff and facilities to be devoted to the conduct of secondary activities. The study was prepared in considerable detail and the recommendation was accepted by the Treasury Board primarily because of the savings indicated. Your Commissioners' scrutiny of this report identified underestimates and omissions of costs which exceed the estimated

savings. For example, both the number and unit costs of houses required for supervisory departmental employees were understated in the day-labour estimates. Similarly, the additional costs of superannuation and other employee fringe benefits were overlooked. Estimated operating costs for the equipment to be purchased by the government were selected from the most favourable set of costs included in the performance handbooks of the manufacturers—a questionable selection in view of the climatic conditions of the Northwest Territories and the higher maintenance costs due to their remoteness.

Departmental accounts are not now kept in a form which segregates in a complete and accurate manner the Department's actual cost experience in assuming this operating responsibility. The validity of the Department's computations may therefore never be tested by results. Indeed, despite the misleading nature of this report, it is being used to support other proposals of a similar nature.

Thus, not only is there danger that the original decision, if wrong, will be perpetuated but a chain of events may be set in motion that arrests rather than promotes the development of commerce and industry in the Territories. What is needed is accurate and complete costing of each operating activity of the Department in order that actual results can be carefully checked against proposals from contractors. Unless the savings are conclusive, the work should be let out on contract for a term of years which would be sufficiently attractive to encourage contractors either to enter or remain in the North and serve the needs of the public as well as those of the government.

NATIONAL CAPITAL COMMISSION

The Commission employs its own engineering, architectural and work forces to undertake minor capital works and landscaping in the city of Ottawa, the Green Belt area and the Gatineau Park, including the ground surrounding or adjacent to government buildings, parkways and the Rideau Canal. The operating staff consists of foreman, equipment operators, maintenance staff, and both skilled and unskilled labourers. Peak annual employment is about five hundred; it is substantially less in winter months.

Such work as construction, demolition and modification of buildings, land clearing and curb construction could be profitably transferred to private enterprise. This represents about twenty per cent of expenditures; a like amount represented by landscaping, road construction and maintenance, and the construction of parking lots, could also be transferred, provided the Commission were to issue formal specifications backed up by proper supervision, inspection and regulation.

DEPARTMENT OF VETERANS AFFAIRS

The Department employs at its hospitals, health centres, and other facilities, forty-five gardeners, one greenhouse-man and twelve labourers, making a total of fifty-eight employees, at a cost in excess of \$200,000 per annum, to undertake general gardening and grounds-keeping work, including maintenance and cutting of lawns, greenhouse cultivation and planting of flower beds, hedge trimming and winter protection of shrubs. The staff is spread over fifteen establishments, all located in or close to urban areas.

During the winter season this staff maintains equipment and removes snow and ice from walks and drives. The activity is seasonal and it lends itself to performance by contract.

OTHER DEPARTMENTS AND AGENCIES

The comments referring to particular departments have equal relevance to operations of other departments. Construction and maintenance of real property is not a unique problem. In most urban centres private organizations are available to undertake this type of work, in sufficient numbers to ensure competition. Government departments seldom can hire and lay off employees on short notice to meet fluctuating requirements (although the National Capital Commission has greater freedom in this regard); they cannot effectively provide the degree of supervision that is usually found in small closely-controlled private firms. These are activities which may divert government servants from more essential tasks.

We therefore recommend that: All departments and agencies review their activities involving the maintenance of real property with a view to contracting out this type of work.

4

MISCELLANEOUS SERVICES

The services, briefly noted below, include activities concerned with arts and graphics, cinemas and theatres, clothing and tailoring, dry cleaning, fumigation, gasoline stations, laundries, maps and plans, photography and sign writing. More than 227 service units of this sort, with a total staff of 1,221, were reported by eighteen departments.

DEPARTMENT OF MINES AND TECHNICAL SURVEYS

Maps

The Department prints maps to meet the requirements of many government departments, in addition to its own. Normally, maps are printed by the Department in runs of five thousand copies, in contrast to runs of fifty thousand to one million copies by commercial printers. Thirty per cent of all maps produced are distributed free to other departments of government and, on a restricted basis, to schools and institutions. The remainder are sold at nominal prices. Revenue barely meets the cost of paper, plates and ink.

The facilities are new, with a large capital investment in both equipment and space. Although the Department's accounts do not provide adequate cost figures for making the comparison, higher costs of outside printing were cited as justification for the present policy of printing almost all maps within the Department. Lower quality, longer delivery, lack of appreciation of government standards, and lack of capacity were given as other reasons for not using private facilities.

Investigations indicated that these allegations are not wholly tenable. For example, work of comparable quality is produced commercially; and some of the delay blamed on the contracting out process could be eliminated by improved planning and simplified purchasing procedures within the Department. However, so long as government production continues on the present scale and work contracted out is in sporadic short runs, commercial printers are unlikely to be interested in establishing facilities capable of meeting the government's needs.

The government has an estimated investment in equipment of \$500,000, and in space of 16,000 sq. ft., with more than fifty employees. The result of the federal government's dominance in this field—probably inevitable in the early stages of the country's history—is that it is difficult to encourage the development of a private industry. However, if private sources are not stimulated to produce maps, Canadian school children may continue to use maps of Canada which are imported from or scribed in foreign countries. The Department of Mines and Technical Surveys should establish realistic selling prices for maps and should limit, if not diminish, map production in government facilities in order to encourage the development of outside sources.

Land Surveys

The Department also carries out all legal surveys on government lands, Indian reservations, in National Parks, and in the Northwest Territories. A permanent staff of thirty-eight (at least half professionals), a summer staff of twenty-three students and some sixty labourers are employed. The work extends across Canada and five per cent of it is contracted out to non-government surveyors.

Surveys of federal property can be undertaken only by Dominion Land Surveyors. Admission to membership in this professional association is controlled by officers of the Department, who are also responsible for the instruction and examinations required. By far the greater number of active Dominion Land Surveyors are employed in the Department.

Encouragement of the professional competence and integrity of land surveyors may once have been a proper responsibility of the federal government, but the standards and ability of professional practitioners known as provincial land surveyors are now widely acknowledged. The federal government recognizes provincially accredited members of other professional bodies such as lawyers, accountants and doctors. Canadian government survey work will forever be performed by federal public servants unless provincial land surveyors, widely distributed across the country, are made eligible and given contracts for surveys of federal government properties.

DEPARTMENT OF TRANSPORT

Marine Services

The Board of Steamship Inspection, composed of employees of the Department of Transport, employs approximately one hundred steamship inspectors to undertake periodic inspections of passenger and other vessels, as required by the *Canada Shipping Act* and by the International Convention for the Safety of Life at Sea. The direct cost of this activity is approximately \$1,200,000 per annum.

Similar inspections of vessels are made by agents of the various international insurance underwriters, known as classification societies, when ship-owners request insurance. The Board is permitted to accept certificates of inspection of these societies, only if inspections are made at ports outside Canada. The standards of both inspections are comparable, and certain other countries accept insurance inspections. But, because inspections by the classification societies within Canada cannot legally be accepted by the Department, over one-half of all inspections are duplicated. Consideration should be given to amending the statute to permit acceptance by the Board of Steamship Inspection of survey reports issued by approved classification societies as a means of reducing inspections by the Board's staff to those of a test or residual nature.

DEPARTMENT OF VETERANS AFFAIRS

The Department employs over two hundred people, in a central workshop and at eleven district centres, for the repair, fitting and manufacturing of prosthetic and orthotic appliances and sensory devices. The majority of all artificial limbs, splints, braces and artificial eyes in Canada are manufactured by the Department for its own purposes, whereas wheel chairs, hearing aids, eye glass lenses, trusses, elastic hosiery and stump socks are generally purchased from private sources. Almost all repair work is performed by civil servants. The Department also employs six persons on research to improve appliances, materials and manufacturing methods.

This activity of government illustrates the manner in which the development of private facilities can be retarded when government itself undertakes to provide for a new or special need and fails to withdraw from the field when the need declines.

This programme was undertaken originally to alleviate the suffering and disability of service personnel injured in past wars. Because the requirements of non-veterans have been relatively small, the Department enjoys almost a monopoly in the field. The prosthetic facilities of the Department have been made available from time to time to other government departments and to

some private organizations but, nevertheless, non-veterans are generally denied use of these facilities. Although the Department attempts to recover its costs when rendering services to other departments or private organizations, it seldom achieves this objective, even taking into account the incomplete nature of the cost figures used.

However, a small private industry has grown up in Canada in response to the needs of disabled civilians, numbering about fifty establishments, which range from one-man operations to workshops employing, at the most, six men. Of necessity, this industry imports many of its requirements and it is too small to conduct serious research and development.

The requirements of veterans will remain static and eventually decline, whereas the needs of civilians can be expected to increase as the population increases. This industry is in private hands in both the United States and the United Kingdom, and manufacturing and repair are secondary responsibilities which could well be delegated, so as not to divert public administrators from more important tasks. Unless the Department takes steps now to transfer a portion of its requirements to private facilities, a prosthetic industry equal to national needs is unlikely to develop. As a result the government may easily inherit the responsibility for the entire nation. Without diminishing in any way benefits currently enjoyed by veterans, the Department of Veterans Affairs should undertake to reduce its manufacturing activities in the prosthetic and orthotic fields with a view to encouraging the development of a private industry capable of meeting total future Canadian requirements.

OTHER SERVICES

Tailor shops of the Royal Canadian Mounted Police produce approximately one thousand tunics, jackets, breeches and trousers each year and undertake adjustments and repairs at a cost in salaries and wages amounting to some \$140,000. The Armed Services utilize commercial tailors for these purposes—a course of action that the RCMP might consider adopting.

The Department of Veterans Affairs operates laundries in conjunction with approximately half its hospitals, veterans' homes and other medical facilities, but utilizes the services of private contractors elsewhere. Over one hundred and fifty persons are employed in this activity, with an operating cost of \$430,000 per annum and an investment in equipment of \$800,000.

Similar service activities can be identified in other departments and agencies of government. The absence of competitive pressures and the fact that costs are not closely controlled encourage many of these facilities to provide better service than similar commercial facilities. Too often, however, the level of

service, although attractive, is unwarranted. Such activities not only increase the administrative burden of government but also add to its cost. Before the government embarks on such activities, there should be sound evidence that real savings will result.

We therefore recommend that: Where the absence of viable secondary industries in Canada requires the government to meet its needs from internal sources, positive policies be adopted designed to contract out sufficient volume to permit the establishment of private facilities capable of meeting non-government requirements on an economic basis.

5

FOOD SERVICES AND ACCOMMODATION

FOOD SERVICES

Under this heading are grouped services associated with cafeterias, dining-rooms, canteens, lunch counters, hotels, motels and hostels. At least five hundred and seventeen units falling within this category and providing employment for 1,509 personnel, were reported by fifteen departments.

Analysis of these varied activities clearly demonstrates how the inadequacies in present government costing procedures can produce results that are inconsistent with declared objectives. Stated government policy is that eating facilities may be installed in public buildings only where the population of public servants is large enough to ensure that the operation can be conducted without any loss of public funds.

Nevertheless, the provision of a variety of free facilities and services violates this clearly stated policy. For example, the Department of Public Works supplies, without charge to the operator: space, including periodic painting and decorating; electric power and lamps (gas where applicable); heat, water and steam; and dry garbage removal service. All cafeterias are supplied with: service counters, tea and coffee urns, tray rack section, steam table section, sandwich rack section, refrigerated salad and dessert section; dishwashing section, including dishwasher, dish scraper and dish tables; refrigerators, sinks and basins, kitchen mixers; cooking equipment, electric meat saws and butcher blocks; tables and chairs for patrons and such additional equipment as may be considered necessary to meet special conditions. Moreover, when this equipment wears out, it is replaced at no charge. As a result, the public purse has financed a capital investment of not less than \$10 million and defrays

costs of free services valued at approximately \$2.5 million per annum.

The declared policy of the government is to provide cafeterias only where commercial facilities are inadequate, although canteens, lunch-rooms and snack bars are permitted elsewhere. There are eleven cafeterias, twenty-seven canteens and other lunch-rooms and snack bars in the Ottawa area, with a total of one hundred and sixty facilities outside Ottawa. Most of the cafeterias are managed by an employees' association or by the Canadian National Institute for the Blind. A caterer, responsible for the day-to-day running of the facility, including provision of food, is normally selected by open tenders. Under the terms of these contracts, private caterers pay to the Ottawa Civil Service Recreational Association alone annual fees aggregating approximately \$28,600. In effect, by the free provision of equipment and facilities, the government is giving a measure of financial support or hidden subsidy to the organizations selected as managers.

In summary, although private caterers are employed in most instances to operate these cafeterias, present arrangements do not show the true cost of carrying on the activity. It is common practice for industry and commerce to provide meals to employees at less than cost, but such subsidies are carefully costed for purposes of management control. Present government procedures disclose neither the extent of the subsidy nor its recipient or recipients. Steps should be taken to ascertain on a continuing basis the true costs of providing cafeteria and similar facilities for public servants, and the position of operators as middlemen should be critically reviewed.

Department of National Health and Welfare—Civil Defence College

At the Civil Defence College at Arnprior, Ontario, departmental employees undertake the catering at a cost calculated to be no less than one dollar per meal. The College's catering arrangements could be contracted out and, based on experience elsewhere, it is believed that economies would result.

ACCOMMODATION

Central Mortgage and Housing Corporation—Laurentian Terrace

Central Mortgage and Housing Corporation operates the Laurentian Terrace for the purpose of providing accommodation and dining-room facilities to junior female employees of the Canadian Government and of foreign embassies and legations in Ottawa. The hostel was established as a wartime measure in 1942, when there was a considerable increase in the number of female employees in government departments and a general shortage of suitable accommodation.

The hostel can accommodate approximately three hundred women and is currently occupied to about ninety per cent of capacity. The scale of charges paid by residents is somewhat below present community levels and a measure of subsidy is indicated by the fact that the annual accounts of the hostel for the year 1960 showed an excess of expenditure over revenue of some \$12,000. This does not take account of all items of expense and the effective net cost of providing the service is approximately \$100,000 annually.

Alternative facilities are now available. Furthermore, since the present scale of charges results in an operating loss of some significance, there is little justification for continuing a peripheral activity of this nature.

Atomic Energy of Canada Limited

Atomic Energy of Canada Limited owns and operates residential accommodation in the town of Deep River, with facilities for up to four hundred and seventy persons. A permanent staff of 38 is required to operate these residences, and operating costs, after deducting revenue from rentals, are in excess of \$200,000 per annum. While accommodation is provided primarily for employees of this Crown company, it is also available for school teachers and persons employed by commercial interests in the town.

No differentiation is made between the rates charged to employees and to non-employees. The present scale of charges is sufficient to cover only forty-six per cent of the cost of operation—an effective deterrent to the establishment of alternative facilities by private enterprise in the community.

OTHER DEPARTMENTS AND AGENCIES

Other departments and agencies operate both food and accommodation services on the same bases as those indicated in the previous illustrations. They raise problems of a similar nature relating to costing, rates and contracting out.

We therefore recommend that: All departments and agencies review activities devoted to providing living accommodation or food services with a view to ensuring that:

- 1 Complete and accurate costs are available.
- 2 Charges to beneficiaries are related to the total cost of operations.
- 3 Responsibility for operating these facilities is contracted out wherever possible.

6

TELEVISION AND FILM

CANADIAN BROADCASTING CORPORATION

Staging of Television Programmes

The Canadian Broadcasting Corporation employs the following personnel (mostly at Toronto and Montreal) to provide the supporting services required to stage television programmes.

Carpenters	109
Printers	82
Graphic arts — design	71
— photography	3
Costume — design	44
— wardrobe and tailoring	52
— staging and service	5
	—
	366
	—

The Corporation proffers a variety of reasons for its policy of making only limited use of private enterprise to provide these services: the need for maximum utilization of facilities; artistic co-ordination, precise scheduling and technical development; the demands of employee unions; team spirit and the urge to develop a wider, more integrated operation. By the same token, it is alleged that experience with some outside suppliers has been unsatisfactory, that their costs are higher and their skills and capacity inadequate.

Nevertheless, the advent of private television and the growth of other theatrical activities make a review of current policies timely. The Corporation's policy of self-sufficiency may well have retarded the development of

facilities to serve the private entertainment industry as well. However justifiable this policy may have been, its potential defects should be clear: a continuing growth of the subsidiary functions of the Corporation which may ultimately lead to diversion of the main effort, with a deterioration in both quality and efficiency. The establishment of positive, rather than restrictive, policies for collaboration with private enterprise should enable the Corporation to divert at least one-third of its staging activities to private industry. This would bring about a four-fold increase of work contracted out and represent an annual volume of about \$1 million.

Video-Tape and Film Production

The Canadian Broadcasting Corporation uses video-tape and movie film for a variety of film inserts, news documentaries and entertainment programmes at each of its six main stations in Canada. About forty-five per cent of total viewing time is from recorded tape or film.

The cost of films acquired by the Canadian Broadcasting Corporation in 1960-61 may be analyzed as follows:

Films produced wholly by the CBC	\$ 785,350
Films produced jointly by the CBC and the private film industry	374,321
Films produced for the CBC by the private film industry.....	979,902
	<hr/> <hr/> \$ 2,139,573

Many of the films produced wholly by the Canadian Broadcasting Corporation could have been produced elsewhere. The creative motivation of the Corporation's personnel engaged in film activities (over five hundred employees), together with the desire to fully utilize facilities required only part-time for news and film inserts, accounts to a material degree for the extent of C.B.C. film production.

In addition, a major portion of the Corporation's programmes is pre-recorded on video-tape. The Corporation places practically no business with industry for video-tape productions—indeed, it actually produces some tape for advertisers. Nevertheless, this area offers substantial long-range possibilities for outside participation, provided certain serious problems are overcome—namely, high capital cost, severe technical problems of recording and transmission, and the ability of private industry to adhere to the Canadian Broadcasting Corporation's programme specifications.

Your Commissioners can see no good reason why industry's participation in both film and video-tape activities cannot be progressively developed. Even a

small percentage increase would, in view of the total cost of CBC-originated programmes of \$42.5 million, represent a significant increase in the present volume of the private Canadian film industry, which is now valued in total at approximately \$10 million.

The Corporation has, however, announced plans to (i) erect a large integrated establishment in Toronto to house all activities, such as radio broadcasting, telecasting, staging and film production; (ii) provide new construction in Ottawa, essentially a head office building and (iii) a projected installation in Montreal along the lines of the pattern developed for Toronto. These plans for expansion should be carefully reviewed to ensure that capital facilities are not being created to undertake work appropriate to private enterprise and thereby rule out increased outside participation.

NATIONAL FILM BOARD

The National Film Board's history, since moving into a new enlarged establishment in 1956-57, clearly demonstrates the consequences of framing capital programmes without adequate consideration of the possible contribution from private enterprise—the Board's film-making activities have since expanded by fifty per cent. During this same period, the amount of work contracted to the Canadian film industry by the Board has decreased, and is now only about one-half the 1955 level.

Although the Board represents all government departments and agencies in their dealings with industry, the business placed by the Board with industry has not been of material assistance to the latter's development, either commercially or technically. There is room for a substantial increase in such business before the Board achieves one of the purposes outlined in the *National Film Act*, which is "to promote the production and distribution of films designed to interpret Canada to Canadians and to other nations".

In the 1960-61 fiscal year, the gross cost of films produced by the National Film Board amounted to \$3,524,551 and the amount contracted out was \$148,723. By comparison, the gross revenue of private film producers, as reported to the Dominion Bureau of Statistics, was \$9,972,151 in the same period. It can be seen from comparing these statistics with those of the Canadian Broadcasting Corporation that the latter (even with its present restrictive policy) is far more effective in promoting the prosperity of the private film industry than the National Film Board.

The National Film Board has established high standards, and it is difficult to criticize the Board's declared purpose of utilizing its plant, equipment and personnel to the fullest extent in order to achieve an economic operating level. However, in view of the adverse effect that the Board's expansion has had on

the participation of private film-makers, consideration should be given to greater utilization of the National Film Board's facilities by the Canadian Broadcasting Corporation as another alternative to the construction of new facilities by the Corporation. This would permit the Board to contract out additional work, now being done internally.

Film-making is an internationally competitive industry. Canadian producers can compete in foreign markets and thereby obtain economic distribution of their films, only if they are supported at home. This is a clear illustration of a special responsibility which ought to influence the government's purchasing policies.

We therefore recommend that: 1 Supporting services, such as staging, be reviewed to ensure that maximum use is made of outside facilities.

- 2 The Canadian Broadcasting Corporation's plans for expansion of capital facilities be reviewed to ensure that proposals for film-making and video-tape activities will not reduce or inhibit greater participation by the private film industry and the National Film Board.
- 3 The National Film Board stabilize its film-making at a level sufficient to provide economic utilization of present facilities.

7

SPECIAL CORPORATE ACTIVITIES

In addition to the various supporting services and secondary activities of the departments and agencies dealt with in the preceding chapters, there are two large industrial-type corporations which were originally acquired by the government as a result of "make or buy" decisions. Both Polymer Corporation Limited and Eldorado Mining and Refining Limited (and its subsidiaries) were acquired in support of the government's activities in World War II. Today they have no such supporting role and their future is essentially a matter of public policy.

POLYMER CORPORATION LIMITED

This company was almost totally excluded from the investigation. Your Commissioners, from limited contacts with it, gained the impression of a well-managed industrial concern engaged in significant expansion and growth, including establishment of plants abroad. Its research activities provide a good example of a well-conducted industrial research programme.

At first glance, public ownership of Polymer seems unwarranted on any of the tests applied in this and other reports on supporting services. The Corporation cannot be regarded as an instrument of public policy. Its ownership by the Crown is in no sense essential, on security or other grounds, to any of the programmes of the federal government. Your Commissioners recognize, however, that the transfer of this undertaking to private ownership presents certain practical problems which, so far, have proved very obstinate.

By the very reason of its good management and commercial success in world markets, it has become established as a valuable and unique Canadian asset, possessing highly specialized scientific, production and marketing skills and experience, and providing careers and a livelihood for more than 2,500 men and women. Under these circumstances, general public approval can only be expected if its sale is made on terms which ensure that control of the undertaking will remain in Canadian hands, and that its integrity will be preserved by its new owners.

ELDORADO MINING AND REFINING LIMITED

A detailed study of this operation was conducted because, in spite of its essentially commercial character, it carried on certain special activities in furtherance of government policy.

Eldorado was originally a private mining company and was expropriated by the government in 1944 when uranium became a material of strategic importance. All shares of the company are now owned by the government, representing an investment of \$8,247,000 at cost.

The primary operating functions of the company are the mining and refining of uranium ore. The original mine was located at Port Radium, Northwest Territories, and is now closed down. The company's Beaverlodge mine, a much more substantial investment, is located near Uranium City, Saskatchewan, a municipality largely centred around Eldorado's operations; it mined approximately one-eighth of the uranium produced in Canada in 1960. The company's refinery at Port Hope, Ontario, processes uranium concentrates from Eldorado's own mines and those of other producers. The company also carries on a programme of research in uranium ore dressing and refining designed to serve the uranium industry as a whole.

A wholly-owned subsidiary, Northern Transportation Company Limited, was originally formed to serve the company's Port Radium mine on Great Bear Lake. It is now a general carrier of waterborne traffic in the Mackenzie River basin—only one-sixth of its gross revenue being derived from Eldorado freight. Another wholly-owned subsidiary, Eldorado Aviation Limited, provides air transportation for the company, but is not a common carrier.

The relative dimensions of the capital facilities employed in these several activities are demonstrated by the summary of the principal fixed assets as at December 31, 1961, shown in Table 3.

In addition to these operating activities Eldorado, as the agent of the Canadian government, is responsible for selling and promoting the sale of uranium products, including the negotiation of contracts and their allocation within the Canadian industry.

Table 3—ELDORADO MINING AND REFINING LIMITED—SUMMARY OF PRINCIPAL FIXED ASSETS—
DECEMBER 31, 1961

Fixed Assets	Original Cost (\$ thousands)	Cost less Accumulated Depreciation (\$ thousands)
Beaverlodge mine	36,350	7,438
Port Radium mine	5,969	nil
Northern Transportation Co. Ltd.	12,378	1,875
Port Hope Refinery	6,800	2,072
Research Laboratories	718	425
Eldorado Aviation Ltd.	911	169

Your Commissioners have found Eldorado to be well managed, with competent personnel and exceptionally high morale. Present uncertainties as to its future, however, constitute a serious threat to its continued efficiency.

Because of current world over-supply, the Canadian uranium industry faces an uncertain future when present contracts expire. At least a decade may pass before the consumption of this metal can be expected to expand sufficiently to absorb present productive capacity. Through mergers and purchases, existing uranium contracts of privately owned mines have been consolidated into fewer hands, in the hope that the remaining companies can maintain activity through this period of difficulty.

Eldorado, as an integral member of the surviving industry, faces a highly competitive future. So long as foreign contracts are allocated at a uniform price to the several remaining companies, the future is reasonably predictable, but with the onset of real price competition the situation is bound to become much more strained. In the meantime, under existing contracts with foreign governments, all Canadian producers are in receipt of a substantial flow of cash. Eldorado itself, without considering the effect of the British contract now being re-negotiated, will accumulate by September, 1964, cash balances of over \$47 million, after paying all expenses. But as a government-owned company, it has not been permitted to use its available funds to diversify its activities or carry on active exploration. Such a proscription promises at best a lingering death. In these circumstances, there is need for a decision as to Eldorado's future, in the absence of which its value as an investment cannot but decline. By severing Northern Transportation, the Port Hope refinery and the research laboratories, Eldorado would remain for all practical purposes just another uranium mine with its necessary transportation facilities. As such, and with its prospective cash flow, it should be highly saleable, and under private ownership might well achieve a permanent success in the mining field.

We therefore recommend that: A decision be made as to the future role of Eldorado Mining and Refining Limited.

8

COMPETITIVE OPERATIONS OF THE DEPARTMENT OF NATIONAL DEFENCE

INTRODUCTION

The pressures tending to multiply the number of activities carried on by the Department of National Defence must be recognized. The Armed Services must ensure that a fighting force is in being, capable of meeting an emergency with maximum mobility and flexibility.

The breathing space to convert non-military facilities to wartime needs is obviously even more limited now than in the past. Because manufacturers cannot afford indefinitely to reserve plants for production in an emergency and because obsolescence proceeds at a rapid pace as changes occur in weaponry, there is a natural inclination for the Armed Services to seek a high degree of self-sufficiency. As a result, they have established many operating facilities of their own.

Having acquired facilities for training purposes or as emergency nuclei, commanding officers properly seek to obtain their fullest utilization, in order to ensure that their operation is co-ordinated on an economic basis. Having trained its personnel to the high degree of technical competence required by modern warfare, the military services quite naturally attempt to provide them with suitable career opportunities in order to retain them. The resultant expansive effect is reinforced by other less justifiable influences.

It is always difficult in a military activity to achieve a balance between need and cost. It is the more difficult when accurate and complete cost information is not available. The same errors and misconceptions on this score were found in the Armed Services as in the civilian departments. Many secondary activities were found to have been undertaken, not for purposes of

preparedness or training, but to achieve economy—a commendable objective, but often lost through inadequacy of the cost data used.

Another factor predisposing the military against contracting out their requirements is the severely limited authority of commanding officers to contract without reference to headquarters. Approval may in many cases require reference to another government department, the Department of Defence Production, or to a control agency, the Treasury Board. The cumbersome administrative requirements, costs, delays and general frustration cannot be expected to stimulate interest in broadening the participation of industry.

The effect of these influences is that the numbers of personnel in the Department of National Defence, both uniformed and civilian, employed in supporting services or secondary activities are quite substantial. The greater the involvement of uniformed personnel in these activities, the less strength is available for other tasks which only the military can perform. The extent of involvement in workshops, maintenance and construction, and services can be seen by reference to Table 4 which shows the numbers employed in these activities as reported at the end of May 1961, in relation to the total strength reported in support of the 1961-62 Estimates.

Table 4—ANALYSIS OF MILITARY EMPLOYMENT IN SELECTED SECONDARY ACTIVITIES

	Defence Research Board		Navy		Army		Air Force		TOTAL	
	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.	Mil.	Civ.
Workshops	—	268	287	2,726	779	948	8,904	526	9,970	4,468
Maintenance and Construction	—	27	10	341	203	1,549	261	2,184	474	4,101
Supporting Services	—	31	89	117	205	269	631	135	925	552
Total	—	326	386	3,184	1,187	2,766	9,796	2,845	11,369	9,121
Total (All Services)										20,490
Total Personnel in the Armed Forces excluding Departmental Administration and Inspection Services	—	3,021	20,754	11,729	47,799	18,667	51,923	14,135	120,476	47,552
Total (All Services)										168,028

WORKSHOPS

Over fourteen thousand men, including more than four thousand civilian tradesmen, are engaged in workshops modifying, maintaining and repairing military equipment. This work covers a broad range, including ships, tanks, guns, firearms, helicopters and airplanes, automotive and engineering equipment, radar, fire-control instruments, life rafts and parachutes. These workshops are also concerned with certain non-military equipment, such as textiles, footwear, refrigerators and electric motors.

Skills applied to this work are numerous and varied and include armourers, aircraft mechanics, blacksmiths, brake and tire servicemen, carpenters, electricians, electronic technicians, engine mechanics, fitters, instrument men, machinists, sheet-metal workers, plant and boiler workers, pipe-fitters and plumbers, painters, sailmakers, shipwrights, vehicle repairmen and welders.

The military services recognize that many of these activities are competitive with private industry, but point to their training value and lower costs to justify existing operations.

Royal Canadian Navy

The Royal Canadian Navy operates dockyards at Halifax and Sydney, Nova Scotia, and at Esquimalt, British Columbia, which make running repairs to ships and carry out ship refits. The latter is a fill-in activity and is shared with the shipbuilding industry. Armament depots are maintained at Esquimalt, British Columbia, Sydney and Dartmouth, Nova Scotia, and Longueuil, Quebec.

These naval facilities account for about six per cent of total Canadian marine construction and repair activities. They are almost fully integrated marine, armament, mechanical and electrical repair stations. Although these operations are almost completely competitive with private facilities, the Navy considers that service control is warranted because of the unpredictable nature of a large portion of the work, certain security aspects, the need to do a large portion of the work aboard the ships, and small runs which make contracting out difficult.

Unlike the other military services, the Royal Canadian Navy does not use these dockyards for training trades personnel and depends largely on civilian staff. Separate facilities are operated for training purposes. However, the dockyards may provide training for officers in supervisory, management and command skills.

Nevertheless, many of the secondary activities within the dockyards could be transferred to private operations, with a significant strengthening of local

industry. Such activities, estimated at \$1 million per annum, are now performed, under supervision of the Navy, largely by civilian tradesmen, possessing the skills as shown in the following table.

Table 5—PERSONNEL EMPLOYED IN SHIP REPAIRS BY THE ROYAL CANADIAN NAVY

	<i>Naval</i>	<i>Civilian</i>	<i>Total</i>
Armourers (inc. air)	34	300	334
Carpenters	10	24	34
Electricians	20	280	300
Engine Repairs	28	48	76
Fitters	—	115	115
Machine Shops	10	124	134
Metal-Working	26	51	77
Pipefitting	—	100	100
Plumbing	15	—	15
Refrigeration	—	20	20
Plate and boiler shops	—	125	125
Paint shops	14	75	89
Sailmaking	—	133	133
Shipwright	—	132	132
 Total Establishment	157	1,527	1,684
Casual Labour—approx.	—	1,025	1,025
 	<hr/> <hr/> 157	<hr/> <hr/> 2,552	<hr/> <hr/> 2,709

The Navy contracts out a very substantial portion of its major aircraft maintenance work, providing a good illustration of the proper utilization of private industry. On the other hand, at the same naval air station a large number of trades personnel are employed repairing electronic equipment. At smaller locations, vehicles are repaired by contract but at Halifax, Longueuil and Esquimalt over one hundred civilian tradesmen repair and maintain approximately six hundred highway-type vehicles, in addition to other more specialized equipment.

Canadian Army

The Royal Canadian Electrical and Mechanical Engineers operate large base workshops at London and Hagersville, Ontario, and at Montreal, Quebec. The labour force employed is approximately as follows:

	<i>Military</i>	<i>Civilian</i>	<i>Total</i>
London	20	121	141
Hagersville	13	141	154
Montreal	179	270	449
	212	532	744

In addition to this labour force, about forty military personnel and three hundred and fifty civilians are engaged in associated management, engineering, clerical and servicing duties.

A substantial amount of the work at both London and Montreal represents the rebuilding of automotive and tank engines and mechanical and electrical components. These activities were undertaken on grounds of economy, but analysis of the figures used by the Army indicated that costs were understated by almost thirty per cent, primarily because cost elements borne by the budgets of other organizations were excluded. This erroneous costing approach not only prevents greater industrial participation, but has also created an unsound basis for decisions to repair or to scrap. Even without fixed costs, marginal costs alone exceed the figures presently in use.

The Montreal workshop has acquired expensive facilities to rebuild tank engines—work that was formerly contracted out. This was justified by using the same erroneous and incomplete costs. The national interest would be better served if this type of activity were contracted out, thereby ensuring that an industrial base is available for expansion in time of emergency. Military facilities, operating at less than full capacity, with a large portion of their time and effort devoted to training, will not prove any more capable of meeting an emergency.

One other factor was noted in this review. Common industrial practice is to exchange worn or damaged components for new or factory-rebuilt ones, a practice denied to service workshops by the government's policy of utilizing Crown Assets Disposal Corporation for all disposals. As a result, the workshops either themselves rebuild components or dispose of them as scrap. Rebuilding a unit with the equipment normally available in such shops is more expensive and results in a unit inferior to one rebuilt by the manufacturer.

We therefore recommend that:

The Armed Services review their activities in the repair and maintenance of military material, using accurate and comprehensive cost information.

CONSTRUCTION AND MAINTENANCE OF REAL PROPERTY

There are more than four thousand civilians employed in maintenance and construction work by the Department of National Defence, in addition to nearly five hundred uniformed personnel. This activity embraces maintenance of military installations, barracks, married quarters, roads and runways, and employs such tradesmen as carpenters, electricians, gardeners, masons, painters, pipe-fitters and plumbers, plasterers and road workers.

One of the most noteworthy illustrations of a construction and maintenance project under detailed control of the military is the Alaska Highway (some 1,300 miles in length). The original assignment of this duty to the Army was appropriate because of the lack of existing facilities in the area and the suitableness of the environment for training.

Annual expenditures on this highway now approximate \$13 million, ten per cent of which represents capital investment. Civilian participation in this work to date has been limited, although the development of the area and increased activity in natural resource exploitation is engendering the growth of available private facilities. Unless the Army progressively transfers this responsibility to outside contractors, such general development may be retarded. Furthermore, in time of war, this highway would have to be maintained by the military at the expense of other more vital assignments or else transferred to civilian management.

We therefore recommend that: The Army transfer responsibility for major improvements and maintenance of the Northwest Highway to private industry in a gradual manner which will encourage development in the area.

SUPPORTING SERVICES

The Armed Forces have about five hundred civilians and an even greater number of military personnel engaged in providing services such as art and graphics, bakeries, cobbler shops, clothing and tailoring, laundering and dry cleaning, and mapping and photography.

Laundry and dry cleaning facilities are operated at a number of remote locations. In addition, however, the Navy has a laundry in the Halifax area. No justification from a training, cost or nucleus viewpoint could be found.

At National Defence Headquarters twenty photographers are engaged in producing black and white photographs for public relations purposes; nearly all of this work could be performed, equally well, by commercial photographers. At Rockcliffe, Ontario, the R.C.A.F. Photographic Establishment employs about one hundred and forty persons in a large, fully integrated photographic facility. This operation is engaged in printing aerial photographs for military, civilian, government and general commercial purposes, only some of which involves security considerations. In addition, all colour printing for the Department of National Defence is executed in this Establishment. Activities have expanded beyond essential requirements and now duplicate facilities of the National Film Board; moreover, it has only recently embarked on a programme of motion picture production.

Training manuals on the use, maintenance and operation of new equipment or facilities are normally provided by the supplier of the equipment, but in some instances large projects of this nature have been undertaken by the Armed Forces, particularly the R.C.A.F. This is hardly a primary responsibility of the Services and, without clear definition of the project or adequate cost information, it is generally uneconomical.

The Army Survey Establishment carries on a large domestic mapping programme in collaboration with the mapping activities of the Department of Mines and Technical Surveys. Supporting services are often contracted out. Some experienced staff is necessary as a nucleus in the event of an emergency, but aside from personnel engaged in field work there are over one hundred and fifty personnel (about forty per cent civilian) engaged in production, compilation and printing.

We therefore recommend that: The Department of National Defence review its supporting services, such as laundry and dry cleaning, photographic, art and graphics, and mapping operations in order to contract a greater proportion to private industry.

TRANSPORTATION

The Royal Canadian Army Service Corps employs a mixture of civilian and military drivers to man its vehicles. Many of the vehicles and many of the tasks performed are similar to those of the private transportation industry.

Nevertheless, only limited use is made of outside contractors. The Army contends that, without assurance of immediate mobilization of private industry, it cannot otherwise guarantee that its administrative requirements will be met in the event of an emergency.

The Air Transport Command of the Royal Canadian Air Force operates scheduled and non-scheduled flights, both domestic and overseas, to deliver military personnel, materiel, dependants and effects, and also other items for civilian departments. These operations are criticized by the Canadian air and surface transport industries. The Service states that it cannot be expected to sustain effective operations in a national emergency in the absence of a prepared plan for the mobilization of industries participating in peacetime operations. It therefore feels called upon to proceed independently of the private air industry. Your Commissioners examine this problem in their report on *Transportation*, which appears earlier in this volume, and conclude that, although military considerations are of primary importance in determining the size and peacetime role of the Air Transport Command, the impact on the civilian economy has received inadequate attention.

We therefore recommend that: The emergency transport plans and current practices of the Department of National Defence be reviewed to ensure maximum integration with civilian transportation facilities.

CONCLUSION

The above examples of activities being undertaken within the Services are again only illustrative of the types of activities that might be better left to the non-military. Effective control over secondary activities must begin with a complete and detailed analysis of present expenditures and manpower allocation. This must be done by programmes and, within the programmes, by areas of operating responsibility. Because of the total nature of modern warfare, at least some rationalization—however equivocal—can be put forward for military involvement in activities of every type normally found in the economy at large. The adverse effect of self-interest can only be minimized, if an objective appraisal, designed to establish priorities, is made of all activities.

11 LEGAL SERVICES

SUPPORTING SERVICES FOR GOVERNMENT

REPORT 11: LEGAL SERVICES

PUBLISHED BY THE QUEEN'S PRINTER • OTTAWA • CANADA FOR
THE ROYAL COMMISSION ON GOVERNMENT ORGANIZATION

CONTENTS

	<i>Page</i>
ACKNOWLEDGEMENTS	367
1 LEGAL SERVICES REQUIRED BY THE GOVERNMENT	369
Introduction	369
Representation of the Government in Criminal Proceedings	370
Division of Responsibility between Federal and Provincial Governments	370
Investigation of Offences	371
The Institution of the Prosecution	371
The Conduct of the Prosecution	372
The Yukon and Northwest Territories	373
Conclusion	374
Claims by or against the Government	374
Representation of the Government in Civil Litigation	378
Department of National Revenue—Taxation	380
Representation of the Government in Various Proceedings	382
Legal Advice and Opinions	383
Drafting	383
Statutes	383
Regulations	384
Contracts	386
Land Transactions	386
Acquisitions	386
Sales	386
Special Procedures	388
International Law	389
Department of National Defence—Office of the Judge Advocate General	391
2 THE LAWYER IN GOVERNMENT SERVICE	393
Lawyers in the Department of Justice	393

	<i>Page</i>
Lawyers in other Departments and Agencies	397
Introduction	397
Departmental Solicitors	398
Other Civil Service Legal Personnel	398
Lawyers in Agencies exempt from the <i>Civil Service Act</i>	399
Recruitment	400
Conditions of Service	403
Classification and Pay	403
Training and Professional Status	405
3 THE LEGAL AGENT	406
Introduction	406
Selection of Legal Agents	406
Instruction and Supervision of Legal Agents	407
Fees, Accounts and Payment of Legal Agents	408
Cost of Legal Agents	409
Conclusions	409
4 AN INTEGRATED LEGAL SERVICE	412
Introduction	412
The Excluded Legal Services	414
Office of the Judge Advocate General	414
Department of External Affairs	415
Department of National Revenue (Taxation)	417
Department of Veterans Affairs	418
Royal Canadian Mounted Police	419
Conclusions and Recommendations	419

ACKNOWLEDGEMENTS

The detailed survey of legal services was conducted by a Project Group under the direction of G. W. T. Reed, B.A., LL.B., Vice-Chairman, *Ontario Labour Relations Board*, Toronto.

A number of Project Officers were associated with Mr. Reed in this endeavour and your Commissioners, in recording their names below, wish to acknowledge the expert knowledge and assistance provided by this Group:

H. G. Batt, B.A., LL.M., *Imperial Oil Limited*, Toronto.

K. Duncan Finlayson, Barrister-at-law, *Kingsmill, Mills, Price, Barrett & Finlayson*, Toronto.

Professor Gerard V. La Forest, B.C.L., M.A., Faculty of Law, *University of New Brunswick*, Fredericton, N.B.

Professor Hugh J. Lawford, B.A., LL.B., B.C.L., Faculty of Law, *Queen's University*, Kingston, Ontario

Dean William R. Lederman, B.A., LL.B., B.C.L., Faculty of Law, *Queen's University*, Kingston, Ontario

P. C. Venne, Q.C., B.A., LL.L., Assistant General Counsel, *The Bell Telephone Company of Canada*, Montreal.

Associated with the Project was an Advisory Committee under the Chairmanship of The Honourable Lucien Tremblay, LL.D., Chief Justice, *Court of Queen's Bench*, Montreal.

The other members of the Committee were:

C. F. H. Carson, Q.C., LL.D., *Tilley, Carson, Findlay & Wedd*, Toronto

Dean G. F. Curtis, Q.C., LL.D., D.C.L., Faculty of Law, *The University of British Columbia*, Vancouver

George Hobson Steer, Q.C., *Milner, Steer, Dyde, Massie, Layton, Cregan & Macdonnell*, Edmonton, Alberta

H. Heward Stikeman, Q.C., *Stikeman & Elliott*, Montreal.

Several briefs and submissions bearing on the subject of legal services were considered and are duly recorded in the final volume of your Commissioners' reports.

Your Commissioners, in acknowledging the assistance and advice received, dissociate all those named above from any of the findings and conclusions contained herein; for these, your Commissioners assume full responsibility.

1

LEGAL SERVICES REQUIRED BY THE GOVERNMENT

INTRODUCTION

The citizen often thinks of "government" and "the law" as interchangeable terms, rarely pausing to consider the traditional distinction between Parliament, the Crown, and the vast and complex administrative operations of "government". So it is important to make clear that this report is not concerned with the passing of laws—a function of Parliament; nor with their interpretation—a responsibility of the courts. It does not discuss police forces as such, the appointment of judges or their decisions. Attention is directed, rather, to lawyers in the public service: their recruitment, what they do, the conditions under which they work and the standard of work they accomplish.

As part of the survey of legal services, a study has been made of administrative boards and commissions that perform functions analogous to those performed by the courts. The problems raised by these so-called "deciding tribunals" are not strictly relevant to the main issues considered hereunder; they have reference, rather, to the relations between the public and the public service—a subject which is discussed in Volume 5 of your Commissioners' reports.

Among more than three hundred qualified lawyers employed in the government service few ever appear in the traditional role of advocate in a court of law. Most are engaged in drafting statutes and regulations, preparing contracts and advising departments. Some are specialists in military law, others in company law, revenue statutes and war veterans' legislation, and a few in international law.

The most striking aspect of the legal services and procedures of government today is their variety and complexity. This is largely a modern phenomenon arising from the growth in size and responsibility of federal operations. Thus, while at Confederation the Department of Justice had almost exclusive responsibility for government legal work, today about seven-eighths of government lawyers are employed outside the Department, and so wide is the dispersal that nearly forty per cent of the total are in agencies outside the jurisdiction of the Civil Service Commission. Even this takes no account of the important volume of legal work undertaken by lawyers in practice acting as "legal agents".

The main legal requirements of the government, described in some detail below, are as follows:

- Representation in criminal proceedings.
- Claims by or against the government.
- Representation in civil litigation.
- Representation in various proceedings.
- Legal advice and opinions.
- Drafting.
- Land transactions.
- International law.
- Military law.

REPRESENTATION OF THE GOVERNMENT IN CRIMINAL PROCEEDINGS

Division of Responsibility Between Federal and Provincial Governments

By Section 91(27) of the *British North America Act*, criminal law, including procedure in criminal matters, is within the exclusive legislative authority of the Parliament of Canada. The *Department of Justice Act*, R.S.C. 1952, c. 71, provides that the Minister of Justice shall "have the superintendence of all matters connected with the administration of justice in Canada not within the jurisdiction of the governments of the provinces". In turn, section 92 of the *B.N.A. Act* places the administration of justice—including the constitution, maintenance and organization of provincial courts having civil and criminal jurisdiction—in the hands of the provinces.

Constitutionally, responsibility in prosecutions has been treated as a concurrent field and divisions of responsibility for prosecutions have developed on the basis of custom and agreement, province by province, and by different types of cases. For example, in the common law provinces the provincial authorities usually enforce counterfeit money offences, but in Quebec the federal government generally prosecutes. Offences under federal statutes, apart from the *Criminal Code*, are the responsibility of the federal government, but there are some variations in practice. The responsibility is on the federal government for the enforcement of all criminal law matters and offences against local ordinances in the Northwest Territories and the Yukon Territory.

The Criminal Law Section of the Department of Justice reviews all capital cases and all proposals for amending the *Criminal Code*, gives advisory opinions on criminal matters, maintains liaison with and supervises proceedings initiated by the Royal Canadian Mounted Police, and directs prosecutions in those areas where the federal government has assumed responsibility. The enforcement of all criminal law in the Yukon and Northwest Territories is also the responsibility of the Section.

Investigation of Offences

The R.C.M.P. performs the police work required in the administration of all statutes of the Parliament of Canada, other than the *Criminal Code*. The Force is responsible for the enforcement of all federal statutes of a penal nature and assists government departments charged with the administration of particular Acts.

While the R.C.M.P. is the primary agency engaged in investigative work in the federal field, other departments and agencies also do similar work. For example, the Post Office and the Department of National Revenue (Taxation Division) have investigation sections, and the Departments of Agriculture, Fisheries, and Trade and Commerce, and the Unemployment Insurance Commission have local enforcement officers scattered throughout the country. No major duplication of effort as between the R.C.M.P. and these departmental investigators was observed.

The Institution of the Prosecution

In the year 1959-60, the R.C.M.P. alone laid 31,082 charges for infractions of the federal statutes, and in 1960-61 there were 26,750 charges. During the same two years, legal agents were appointed in 11,913 cases. Their

selection, once the department or agency decides to prosecute, is made by the Department of Justice.

The decision to prosecute is made, in most cases, by the department or agency concerned, but the methods employed within departments and agencies vary considerably. Thus, in connection with offences involving the *Aeronautics Act*, *Canada Shipping Act*, *Government Property Traffic Act*, *Indian Act*, *Explosives Act*, and *Parole Act*, the R.C.M.P. may initiate prosecutions in flagrant cases, but for other types of prosecutions, such as those relating to Customs narcotics, the R.C.M.P. must first obtain a departmental authorization.

Within departments or agencies, the decision whether or not to prosecute depends on the nature of the offence: for example, the Chief Electoral Officer makes his own decision and may secure the opinion of outside counsel. For offences involving narcotics, numbering on the average about 600 a year, control is in the Narcotic Control Division of the Department of National Health and Welfare, and the decision to prosecute involves close collaboration between that Division, the Department of Justice and the R.C.M.P. In so far as the Department of National Revenue (Taxation Division) is concerned, minor offences are handled at the local office level in conjunction with the R.C.M.P. In more important cases, the Department's Legal Branch at headquarters is consulted.

In some cases where they are involved, the R.C.M.P. may go direct to a standing agent (an outside lawyer retained on a continuing basis) who will make the decision as to whether a prosecution should be instituted. This will occur where speed is important, or where the prosecution must be conducted by an agent, as in the Province of Quebec.

The large volume of prosecutions, their wide geographic distribution and the necessity for quick action in some types of cases, obviously imposes a tremendous burden on the nine officials in the Department of Justice who are formally responsible for directing prosecutions. In practice, in so far as the initiation of prosecutions is concerned, the Department has had to rely on the judgment of lay investigators, standing agents and the officers of federal departments and agencies, reserving to itself the right to screen important and difficult cases, such as those involving income tax evasion.

The Conduct of the Prosecution

Lawyers in the Department of Justice rarely prosecute. They may appear in important cases, for example concerning immigration and income tax evasion, and occasionally take cases in the Territories; but for most prosecutions

legal agents and lay investigators are employed. Of the 31,082 charges laid by the R.C.M.P. in 1959-60, the police prosecuted 24,397 or 78.5%. In 1960-61, the figure was 22,069 or 82.5%. During these two years, agents were retained and paid to conduct 11,366 charges laid by the R.C.M.P.

Legal agents may be of two types, standing or *ad hoc*. Standing agents who are available on a continuing basis have been appointed for prosecutions concerning, for example, the *Unemployment Insurance Act*, the *Opium and Narcotic Drug Act*, failure to file returns under the *Income Tax Act*, the *Food and Drugs Act* ("goof ball" cases only), the *Canada Shipping Act* (in Quebec).

Lay investigators normally lay an information and conduct the prosecution when it is believed the accused will plead guilty; otherwise, a legal agent is generally appointed. The R.C.M.P. sometimes act in contested cases; however, if the case is likely to be a difficult one, appointment of counsel is usually sought.

Lay prosecutors are not recognized in Quebec courts and all prosecutions are conducted by legal agents, except in those few instances where government lawyers appear. As a consequence, all 3,510 charges laid by the R.C.M.P. in Quebec in 1960-61 required legal agents, while in the rest of Canada only 1,171 cases were prosecuted by lawyers out of 23,240 charges laid.

It is clear that, for most practical purposes, the conduct of prosecutions, like the decision to initiate prosecutions, is vested in departments and agencies. The Department of Justice does, however, exercise more control over appeals from verdicts in criminal prosecutions. Normally, departments and agencies make recommendations with respect to appeals, but the Criminal Law Section in Justice makes the ultimate decision whether it should be abandoned or not; should the appeal be proceeded with, Justice lawyers may conduct the appeal or at least control its conduct.

The Yukon and Northwest Territories

In the administration of justice in the Yukon and Northwest Territories the Department of Justice confronts problems which are not to be found in other parts of Canada. One example is the question of allowances for defenders of indigent persons; another concerns payment of witness fees and conduct money. These are of significance because witnesses may be put to considerable personal trouble and expense by reason of distances, poor or non-existent public transport facilities, and so on.

The centre of justice in the Yukon is Whitehorse, and Yellowknife on

Great Slave Lake is the seat of the assizes for the Northwest Territories. Problems have arisen in Yellowknife because the judge has on occasion held court at places more convenient to some than to others: for example, in areas where Eskimos live. But it was observed that the Department of Justice sometimes takes exception because of the extra cost of transporting prosecutor, court officials and others. Your Commissioners recommend measures in a later section of this report which should alleviate some of the problems associated with the administration of justice in the Territories.

Conclusion

The Criminal Law Section of the Department of Justice is charged with direction of criminal prosecutions, but because of the volume of business, the relatively small staff, the very wide area over which prosecutions may take place and the urgency of many cases, the duty is delegated to departmental officials, investigators and legal agents. In thousands of cases the Department is in fact little more than a "post office". In the case of appeals, which are fewer, the Section exercises more control.

The use of lay investigators to conduct prosecutions meets with opposition by the legal profession. But to appoint Crown prosecutors in all cases would be costly. Estimates based on average costs of prosecutions across Canada reveal that the prosecutions now conducted by the R.C.M.P. would, if performed by legal agents, have cost an additional \$1.5 million annually. Despite objections to the use of lay investigators, radical changes in the system are not recommended. Cost militates against change, and there is no evidence that the present practice is ineffective.

Supervision of prosecutions can best be improved by strengthening the system of standing agents and by decentralization to branch legal offices. These conclusions are equally applicable to the legal work entailed in civil litigation, tax and land cases. Your Commissioners make specific recommendations with these objectives in mind in a later chapter of this report.

CLAIMS BY OR AGAINST THE GOVERNMENT

The many activities of government departments and agencies give rise to claims by and against the Crown and, to ensure a degree of uniformity, "claims regulations" have been promulgated. Government departments generally are subject to the Claims Regulations approved on July 15, 1960, while the Department of National Defence has a special order dated November 21, 1952.

The regulations also apply to most government corporations, boards, commissions and agencies (the Canadian National Railways is one excluded). As soon as it is apparent that a claim may be made, departments gather information, statements, plans and photographs, etc., and report to the Deputy Attorney General of Canada. If the claim is against the Crown, he decides if it is to be contested. Contested claims are handled by the Department of Justice. Where a settlement appears wise, and the department concerned accepts liability, Justice may negotiate and recommend payment up to \$5,000, without Treasury Board approval. For amounts over \$5,000 both settlement and payment must be approved by the Treasury Board. Alternatively, the claim may be referred back to the department with advice to pay or negotiate: the department can settle any claim up to \$1,000, but must obtain Treasury Board approval for any claims above this sum. In practice, legal officers in a department are empowered to settle the numerous minor claims not exceeding \$100. When the claim is made by the government, a similar routine is followed, except where the matter is referred back to the department and the amount demanded by the department is not paid—in which case the matter is returned to Justice for action.

In general, the National Defence Claims Order requires procedures similar to those in the Claims Regulations. Where they differ, the reason is generally because of the use of weapons, operation of aircraft or execution of military manoeuvres, and the large number of claims handled—more than all civilian government departments together.

The most important difference is to be found in the larger discretionary powers conferred on officers of the Judge Advocate General's office to settle claims in the field: in each of the five military districts, an Assistant Judge Advocate General is empowered to settle any claim up to \$1,000 of which general damages do not exceed \$200; the Judge Advocate General can, himself, settle claims up to \$3,000 of which general damages do not exceed \$1,000. All claims in excess of these amounts must be referred to Justice, both for an opinion and for settlement.

Slightly more than half of the departments and agencies queried report no need for legal services in connection with claims. About one-quarter use their own legal staff.

Table 1 shows the proportionately large number of small claims currently coming to the Department of Justice for review and settlement. Table 2 presents a similar picture of voluminous small claims handled by a selected group of departments and agencies.

The system imposed by the Claims Regulations ensures control and uniformity. However, in practice it is cumbersome and time-wasting, particularly

*Table 1—CLAIMS BY AND AGAINST THE CROWN ARISING OUT OF MOTOR VEHICLE ACCIDENTS—
PROCESSED BY DEPARTMENT OF JUSTICE, FISCAL YEAR 1959–60*

	Total of All Claims	Total of Claims Involving M.V. Damage Only	Total of Claims Involving M.V. Damage Only Under \$200	Total Payments Involving M.V. Damage Only Under \$200
AGAINST THE CROWN				
(a) Number.....	333	257	177	117
(b) Amount.....	\$859,780.09	\$47,563.38	\$13,500.68	\$7,786.11
BY THE CROWN				
(a) Number.....	312	213	117	72
(b) Amount.....	\$332,429.77	\$46,815.04	\$10,918.78	\$6,324.76

Table 2—CLAIMS AGAINST THE CROWN REPRESENTED BY CERTAIN DEPARTMENTS, BOARDS AND AGENCIES FOR THE FISCAL YEAR 1960–61

Department Board or Agency	Total Number of all Claims	Motor Vehicle Claims		
		Number	Under \$200	Over \$200
Agriculture.....	10	9	6	3
Citizenship and Immigration.....	4	2	2	0
Commissioner of Penitentiaries.....	14	6	4	2
Forestry.....	2	2	1	1
Mines and Technical Surveys.....	7	7	6	1
National Film Board.....	10	9	8	1
National Health and Welfare.....	10	10	7	3
National Research Council.....	12	11	10	1
Northern Affairs and National Resources.....	14	9	6	3
Post Office.....	23	14	13	1
R.C.M.P.....	95	95	67	28
Department of Veterans Affairs.....	8	7	5	2
TOTAL.....	209	181	135	46

Table 3—DEPARTMENT OF NATIONAL DEFENCE—CLAIMS STATISTICS

Fiscal Year	Claims under ¹ \$1,000 Against the Crown		Claims over ¹ \$1,000 Against the Crown		Total Cost of Claims Against the Crown (\$000)	Revenues from Claims By the Crown (\$000)	Claims By and Against the Crown Investigated by UAB Number	Cost (\$000)
	Number	Cost (\$000)	Number	Cost (\$000)				
1958-59	1,048	132	95	889	1,021	185	1,392	69
1959-60	1,082	139	50 ²	206	345 ³	147	1,471	76
1960-61	1,322 ⁴	141	40 ²	211	352 ³	305	1,424 ⁵	69 ⁶

CLAIMS AGAINST THE CROWN UNDER \$200 SETTLED BY UAB

Fiscal Year	Number	Cost of Claims (\$000)	UAB Fees (\$000)	Total Cost of Claims (\$000)
1960-61	497	35	16	51

Notes: ¹The total figures of claims under and over \$1,000 are not indicative of the number of claims processed but only those settled. The actual number of files closed in fiscal year 1960-61 by JAG officers was 2,080.

²Of 21 claims against the Crown between \$1,000 and \$3,000 settled in fiscal year 1959-60, 12 were settled by JAG and 9 after being sent to Justice.

Of 18 claims between \$1,000 and \$3,000 in fiscal year 1960-61, 11 were settled by JAG and 7 after being sent to Justice.

³In the fiscal year 1959-60, 32 other claims of various sizes were settled by the Exchequer Court and the Department of Justice. In the fiscal year 1960-61, 23 other claims of various sizes were settled by the Exchequer Court and the Department of Justice.

⁴The figure 1,322 includes claims against the Crown settled by UAB.

⁵The figure 1,424 includes 497 claims under \$200 in subsidiary table.

⁶The amount of \$69,000 includes fees of \$16,000 in subsidiary table.

in the case of trivial claims. A vehicle accident involving less than \$200 can involve several lawyers and extended correspondence. It may be thought to be in the public interest always to deny liability, but the cost of settling small claims is disproportionate.

Prior to 1959, claims made against the Crown involving the Armed Forces were the subject of a board of inquiry; in 1959 the Underwriters Adjustment Bureau Limited (UAB) was engaged to report on each incident referred to it in Canada. Where a claim involving a DND motor or tracked-vehicle does not exceed \$200 and there is no personal injury, the Bureau may settle the claim. The UAB is reimbursed after a field representative of the Judge Advocate General's office approves the settlement. UAB also investigates and reports on other cases involving substantial injury and property damage claims, and, in some cases, has conducted the settlement negotiations. In 1960, UAB handled approximately 1,300 claims, including claims in excess of \$200. The handling charge runs between three and five per cent of the value of the claim. Table 3 gives some indication of the settlements handled by UAB.

Your Commissioners believe that present practices for handling claims are far from efficient and that immediate steps should be taken to simplify procedures. The settlement of small claims might be handled most expeditiously by employing, as the Armed Forces do, a private adjusting service. Alternatively, departmental solicitors should be given much greater discretion than they now have under the \$100 limit to settle claims. Your Commissioners suggest that this limit be raised to claims not exceeding \$1,000, of which general damages do not exceed \$200. In the long run, as the number of these claims tends to rise—particularly for cases involving motor vehicles—the government may find it useful to employ its own staff of adjusters, as certain large business concerns do.

Your Commissioners consider that much unnecessary duplication of work can be eliminated, that routine clerical work connected with claims settlement can be removed from the hands of lawyers and that substantial savings are possible.

REPRESENTATION OF THE GOVERNMENT IN CIVIL LITIGATION

The Department of Justice, through the Attorney General of Canada, is charged by the *Department of Justice Act*, R.S.C. 1952, c. 71, with: "the regulation and conduct of all litigation for or against the Crown or any public department, in respect of any subject within the authority or jurisdiction of Canada". Hence, the Department of Justice has the conduct of

litigation, while consulting with the department concerned and keeping it informed. The Department is involved in frequent references to the courts on constitutional questions but it is also involved in a wide variety of civil litigation matters.

Fifty-five departments and agencies of the hundred examined call on the Department of Justice in civil litigation matters; the Department often employs law firms or agents to act.

Where matters are not referred to Justice, various practices are followed. For example: the Board of Transport Commissioners handles all legal matters through its own staff who may appear before the Supreme Court of Canada to represent the Board; Central Mortgage and Housing Corporation has a substantial volume of legal work which is dealt with through agents nominated by the Department of Justice; the St. Lawrence Seaway Authority has a legal staff and exercises a degree of independence in litigation which permitted, for example, the direct settlement of substantial claims by contractors arising out of the construction of the Seaway; the Canadian Broadcasting Corporation retains standing agents in several centres.

The Attorney General of Canada handles a wide variety of lawsuits both for and against the Crown. Damage actions form a substantial part of the work and settlements are generally negotiated before trial. About twenty-five per cent of all taxation cases are now dealt with by Justice lawyers, assisted by members of the legal branch of the Department of National Revenue.

Although departments and agencies report that "outside agents" are customarily retained to handle civil litigation matters, the policy of the Department is to have its lawyers plead as many cases as possible in the Exchequer Court and Supreme Court of Canada involving the Crown in the right of Canada. In a representative Supreme Court list there were six such cases, three of which were handled by Justice lawyers alone and the others by Justice lawyers in association with outside counsel. At present, about twenty-five per cent of civil litigation work goes to outside agents. In recent years the number of "man-days" spent in court by Justice officers has been:

1957 —	99
1958 —	125
1959 —	185
1960 —	145

There were in August-September 1961 roughly 1,200 cases outstanding in the regular courts (apart from the Quebec courts and those cases coming from Quebec), in the Exchequer Court and in the Supreme Court of

Canada. Of the Quebec cases, 269 were in the hands of Justice Department lawyers.

The following tabulation, which refers only to claims made by the Crown, is a record of files closed (cases ended) and the number of agents retained. It reveals an increasing proportion of cases taken by Department of Justice lawyers:

Year	Number of files closed	Number of cases where agents used
1957	215	23
1958	236	17
1959	281	12
1960	325	16

Litigation, in contrast to the initiation and conduct of criminal prosecutions, is centralized and controlled. There is uniformity of procedure and the approach to problems is consistent. Although there were some complaints, departments (with the possible exception of the Department of National Revenue) appear satisfied with the system.

One complaint is that the department concerned does not deal directly with the solicitor and so is inadequately informed of progress and unable to make recommendations. A study of complaints points to a few cases where there has been excessive delay. In one instance—an action to dispossess an owner of property—the matter dragged on for six years before completion. One Crown corporation has reservations about Justice's ability to give cases the preparation and attention they deserve; another Crown corporation uses its staff to do much of the legal preparation, because Justice lawyers have not the essential technical knowledge of its activities.

The complaints cited are in the main justified but are by no means symptomatic of any basic weakness in the system of handling civil litigation. On the whole, these difficulties arise because the Department of Justice is understaffed. Your Commissioners conclude that the centralized control and provision of legal services in connection with litigation is working well and that should the subsequent recommendations for integration of legal services in the Department of Justice and the creation of branch offices be adopted, complaints concerning delay and inadequate collaboration would virtually disappear.

Department of National Revenue—Taxation

Civil litigation for the Taxation Division is handled in such a fashion that there is duplication of effort between Justice and National Revenue lawyers.

The latter take all cases before the Tax Appeal Board, but on appeal to the Exchequer Court or Supreme Court or for cases originating in the Exchequer Court, lawyers from Justice take over.

Taxation Division lawyers are organized into four sections: (1) objections and appeals; (2) prosecutions and investigations; (3) collections and securities; (4) legislation, regulations, Orders in Council and opinions. These lawyers familiarize themselves with each case by discussing it with the assessor, and they represent the Department before the Tax Appeal Board. The work performed, particularly in the objections and appeals section, requires them to travel to all parts of Canada where sittings of the Board and of the Exchequer Court are held; for this reason, an attempt is made to assign the work to individual lawyers on a regional basis.

The Tax Appeal Board, as originally constituted, was designed to provide a relatively informal forum where the taxpayer might appear to discuss his problems. The taxpayer may argue his own case or he may be represented by his auditor or his lawyer. Over the years, however, the Board has tended to become a more formal tribunal, publishing its rules and procedures, as well as the reasons for its judgments.

The Tax Appeal Board, seeking to preserve its independence from the Department of National Revenue and also to retain the original informality of proceedings, often calls sittings at short notice without proper regard for the convenience of Revenue lawyers. Partly for this reason, little use is made of interlocutory motions which permit one side or the other to clarify portions of a pleading or to determine the relevant matters at issue. It would be preferable were resort made more frequently to such interlocutory motions and to a much more careful and extended drafting of Replies and Notices of Appeal coming from Revenue lawyers. Department of Justice lawyers do not appear before the Tax Appeal Board, partly because of the lack of sufficient staff. When a Justice lawyer enters a case in a higher court, he is briefed by the National Revenue lawyer and, if Justice appoints an agent, further briefing has to be given and additional copies of all documents prepared. National Revenue would prefer that, once an agent is appointed, he be instructed by the Taxation Division as is normally the case in connection with litigation concerning the enforcement of securities.

In recent years there has been a substantial increase in the amount of tax work handled by Justice. In 1952 there were only 36 income tax appeals pending in the Exchequer Court; in 1961 there were 157. In 1952 there were 16 income tax appeals before the Supreme Court; in 1961 there were 26. In

1959 Justice lawyers personally argued only two per cent of the cases, two years later they argued twenty-five per cent.

It is clear that relations between the Departments of Justice and National Revenue on tax litigation are far from satisfactory and your Commissioners make specific proposals, later in this report, which should eliminate duplication and improve relations between the two departments.

REPRESENTATION OF THE GOVERNMENT IN VARIOUS PROCEEDINGS

Thirty-three departments and agencies indicated that they had special legal requirements, such as counsel for royal commissions, representation at international conferences and treaty negotiations, and labour matters. Twenty-one of this number meet these requirements by using their own legal staffs, and four rely on practicing solicitors whom they themselves retain. Only the Department of National Revenue and the Restrictive Trade Practices Commission use the services of Justice in this connection. The Canadian Broadcasting Corporation is represented before the Board of Broadcast Governors by an administrative vice-president.

Questions of both international and domestic law are involved at international conferences where lawyers from many departments perform important services. The most typical are the Departments of National Health and Welfare, Labour, Transport, Northern Affairs and National Resources, as well as the Department of External Affairs. Some of the agencies most frequently involved are the Air Transport Board, the Canadian Maritime Commission and the Atomic Energy Control Board.

Within Canada, a number of statutory bodies, such as the Board of Broadcast Governors, the National Energy Board and the Board of Transport Commissioners, hold special inquiries at which their legal counsel assist. The Department of Citizenship and Immigration is represented at special inquiries under the *Immigration Act*. Legal Officers attached to the Director of Investigation and Research examine witnesses before the Restrictive Trade Practices Commission. The Customs Division of the National Revenue Department is represented before the Tariff Board by Justice lawyers. The Department of Transport employs legal agents to conduct investigations into air crashes and navigation casualties involving individuals. Apart from the special problems associated with the international law matters (to be examined later), arrangements for meeting the above miscellaneous legal needs of the government appear to be satisfactory.

LEGAL ADVICE AND OPINIONS

The *Department of Justice Act*, R.S.C. 1952, c. 71, provides that "the Attorney General of Canada shall . . . advise the heads of the several departments of the government upon all matters of law connected with such departments". At one time or another, almost all government departments and agencies need legal advice and opinions which they obtain from their own legal advisers or, if the point is of substantial importance, by reference to the Deputy Attorney General.

Opinions are prepared either by the Advisory Section of the Department of Justice (except for matters likely to result in litigation—which are dealt with by the Civil Litigation Section) or, in the case of questions involving the Quebec Civil Code, by the Civil Law Section. The work is normally performed in chronological sequence. During the twelve months ending May 31, 1961, the average was 107 opinions monthly. Excluded from this monthly average are several types of less formal opinions, such as those given in the course of litigation, the handling of criminal prosecutions or the preparation of legislation; also those given in connection with correspondence, and special cases, such as returns to Parliament. Approximately one-half of the total relate to motor vehicle accidents, and are rendered by the Civil Litigation Section or Civil Law Section of Justice.

A good standard is maintained. Nevertheless, departments complain that the Department of Justice is slow in giving opinions (the average monthly backlog, at the time our inquiries were made, amounted to 162 references, of which about one-quarter were held up pending the provision of additional information from the departments concerned). Though technically correct, many opinions are considered impracticable—a complaint which is less often heard where Justice officers are seconded to departments—because the Department of Justice confines its opinion to legal aspects of the case. It does not advise other departments on questions of policy. This attitude is correct in principle, but a good lawyer generally indicates to a client what he thinks is the prudent and reasonable thing to do. Extension of the practice of secondment, through the integrated legal service proposed later in this report, should facilitate the rendering of legal advice and opinions.

DRAFTING

Statutes

The Department of Justice has the responsibility for drafting statutes, although production of a statute is a joint enterprise of the sponsoring depart-

ment and the Legislation Section of the Department of Justice. The staff of this Section is specially trained for this type of work; a newly recruited lawyer requires about two years to become a good draftsman.

There are three stages in the drafting of a statute: (1) preparation, (2) instruction, and (3) drafting. The preparatory stage is primarily the responsibility of the sponsoring minister, who outlines the broad policy and instructs the draftsman. The draftsman, by detailed questioning of the officials involved, satisfies himself that he knows what is wanted, and prepares and circulates a preliminary draft. The interchange between draftsman and sponsor continues until a satisfactory version of the bill is prepared.

All bills must be available to the House of Commons in French and English versions. Since bills are almost invariably drafted in English and then translated into French, care must be taken to ensure the juridical accuracy of the French version as well as ensuring that the Bureau for Translation is given sufficient time to render a good translation. It is essential that a French-speaking lawyer trained in the law of Quebec should be associated at an earlier stage than is now customary to ensure that the French version is juridically accurate and to point out any special implications that the bill may have for persons in Quebec under the Civil Code. In this context, it is also important to note that where a department has extensive dealings with residents of Quebec, it should have legal staff available to deal with citizens in the French language. Departments and agencies which do not have legal officers trained in the Civil Law should take care to refer the particularly complex problems arising under the Civil Code to the Civil Law Section of the Department of Justice. The proposed integrated legal service should make possible the seconding of bilingual legal personnel to appropriate departments and encourage the reference of Civil Code problems to the relevant Section in Justice.

It is customary, at rather prolonged intervals, to prepare and publish consolidations of the Statutes of Canada. This is a relatively expensive matter; the consolidation of 1952—the only one since 1927—cost roughly \$500,000. Despite the cost, the importance of this service to the public suggests the need for more frequent consolidations, possibly every fifteen years. Consolidations could be more economically and rapidly prepared if the staff of the Department of Justice (temporarily enlarged, if need be) were employed rather than a special revising commission.

Regulations

Statutory orders and regulations are a constant and necessary feature of modern government. They form a large proportion of the law in force, hence

the way they are made and the arrangements for publication are important.

Regulations usually elaborate the general policy expressed in statutes and are instrumental in the implementation of policies of a department or agency; they therefore require the services of solicitors familiar with the intricacies and objects of departmental programmes and policies. They also require the same attention to accurate translation and careful checking by Civil Law lawyers as has been recommended in the framing of statutes. Departments oppose any centralization of legal services which will deprive them of direct and experienced legal advice in this area.

The chief responsibility for regulation-making is on the departments and agencies, although a degree of control is vested in the Department of Justice and the Privy Council Office.

When draft regulations have been approved in a department, they are sent forthwith to the Privy Council Office for review by the legal officer (seconded by the Department of Justice) before promulgation and reporting to Parliament in the *Canada Gazette*. Their volume is so great as to make this, at times, a somewhat perfunctory check. In 1960, for example, there were 578 regulations published in 1,618 pages of the *Canada Gazette*. Review and occasional redrafting are major undertakings, and the volume has sometimes exceeded the facilities available for review. Regulations reflect the delegation of discretionary power to ministers and their officials and, as part of the law of the land, warrant the most careful attention being paid to their form, and to consistency with statutory powers and the *Canadian Bill of Rights*. Care should be taken to ensure that the Privy Council Office and the Department of Justice exercise their undoubted powers of review in all respects.

Revised and consolidated sets of the statutory orders and rules in force were published in 1949 and again in 1955. Since consolidations of the regulations become quickly dated, your Commissioners commend the decision of the Privy Council Office requiring each department to present revised and consolidated sets of its regulations at least once every five years. These are to be published in Part II of the *Canada Gazette*, as they occur. Coupled with a quarterly cumulative index, this arrangement would avoid the periodic crisis of wholesale revision throughout the government every five or ten years. Ideally, a proper solution depends upon a continuing process of revision and consolidation year by year, with appropriate publication, possibly in loose-leaf form. This would avoid an existing serious defect that, when amendments or additions to regulations are made, the amended regulation is not repeated in full. A rough estimate of the cost of such publication is that, with larger revenues derived from increased sales, an annual net cost of \$40,000 would be entailed—exclusive of the initial capital outlay.

Contracts

Most departments and agencies require legal assistance in drafting contracts. The work is done by the departmental solicitor, or an officer seconded from Justice. Standard contract forms are used extensively. Land transactions involve such complicated procedures that they are examined hereunder.

LAND TRANSACTIONS

Acquisitions

The government is continually acquiring land. In the period 1958-1960, eighty-four new files were opened each month, and in the summer of 1961 there were 1,400 active files. Your Commissioners make additional observations and recommendations on this subject in their report on *Real Property*. Here, only the formal legal procedures are described.

When a department or agency buys, it negotiates with the landowner, generally after securing expert opinion on the value of the property. Under the Regulations Relating to the Acquisition of Land by Government Departments, a minister may purchase when the price does not exceed \$15,000. Purchases above this amount must be approved by Treasury Board and, in the case of all purchases, "no payment may be made in respect of a purchase of land before delivery of a good title satisfactory to and to be obtained through the Deputy Minister of Justice". When a purchase has been authorized, the matter must be submitted to the Department of Justice where most of the work is done by lawyers or notaries in private practice. They are appointed legal agents by the Minister of Justice and conduct searches, prepare deeds and other documents and submit a certificate of the state of the title to the Department of Justice, where the work is checked and approved.

The routine followed in expropriating land is similar to that for making purchases and is also governed by the Land Acquisition Regulations. Expropriation takes place when the owner and the department cannot agree on a price or when there is a flaw in the title. If a department and a land-owner cannot agree on the amount of compensation, the amount is eventually determined by the Exchequer Court.

Sales

Land is usually sold by the government by Letters Patent under the Great Seal, rather than by deeds. Since the Great Seal is in the custody of the Department of the Secretary of State, the formal document has to be prepared

in that Department. However, because the Attorney General must settle and approve all instruments issued under the Great Seal of Canada, the Department of Justice is also involved. Since many sales are made through Crown Assets Disposal Corporation, there may be three departments or agencies involved in addition to the original department or agency. Moreover, the Governor General in Council must give authority to dispose of the land. Selling land by Letters Patent is an involved proceeding which merits attention.

While the Department of Public Works manages most government lands, other departments are also active. For example, the Department of Transport manages lands for canals, marine services and airports; the National Capital Commission and the Department of National Defence control substantial parcels of land; and a number of Crown agencies hold land in their own names. In addition, the Department of Northern Affairs and National Resources has the National Parks and the vast areas in the north.

If land is determined to be surplus, departments generally must have it disposed of by Crown Assets Disposal Corporation. If land may be disposed of otherwise, the department concerned can arrange for the sale. Authority to sell must first be obtained from the Governor in Council, except in those instances (for example, sales of land in the Northwest Territories or certain Indian lands) where prior general approval has been given by the Governor in Council acting through a Cabinet Committee. The Order in Council approving the sale is sent to the department concerned, which then writes to the Department of Justice requesting the preparation of draft Letters Patent. The complexity of this process varies with the circumstances and the type of land involved: for example, some lands are under the *Indian Act*, others under the *Public Lands Act* or the *Territorial Lands Act*. Simple forms can be used for certain transactions, others require detailed attention by a lawyer. The draft Letters Patent do not contain a description of the land. This is the responsibility of the department involved, except in those instances where a legal agent or a Notary is retained as, for example, where land is exchanged for another piece of land.

The procedure for final issuance of the necessary Letters Patent follows a circuitous route:

- To Justice for drafting.
- To originating department for preparation of the description of the land.
- To Secretary of State for preparation of actual Letters Patent.
- To Justice for review and signature of Deputy Attorney General.

- To Secretary of State to be signed by Deputy Registrar General.
- To originating department for Deputy Minister's signature.
- To Secretary of State for forwarding to His Excellency the Governor General for signature.
- Returned to Secretary of State for embossing and affixing the Great Seal, photographing and recording.
- To originating department.

By use of this elaborate procedure, 527 Letters Patent for disposal of Crown lands were issued in 1960.

Special Procedures

The Land Acquisition Regulations do not apply to some Crown agencies. Consequently their acquisitions of land are not supervised by the Department of Justice. Among the most important of such agencies are Atomic Energy of Canada Limited, Central Mortgage and Housing Corporation, the Farm Credit Corporation, and the Directors of the *Soldiers' Settlement Act* and the *Veterans' Land Act*. Lawyers in private practice do this work. They are selected from a list approved by the Minister of Justice, except in the case of the Farm Credit Corporation where the list is approved by the Minister of Agriculture.

Some Crown agencies, such as the National Capital Commission and the Directors of the *Soldiers' Settlement Act* and of the *Veterans' Land Act* (as corporations sole) avoid many of the cumbersome procedures because they convey land by deed rather than by Letters Patent.

The vast majority of leases entered into by the government are prepared by department or agency solicitors, the departments most involved in leasing land being Public Works and National Defence.

The present methods of coping with the legal problems associated with the government's transactions in land are unduly cumbersome and diffused. The establishment of a Lands Section in the Department of Justice, concerned principally with the acquisition and disposition of land, would permit a more expeditious, centralized handling of such matters, with a possible elimination of the present use of Letters Patent. Part of the work now performed by legal agents could be assumed by this Section; and, particularly if coupled with a system of branch offices, experts in the varied land laws of the provinces could

be developed. A notary to handle land transactions in Quebec could also be made a part of this Section. In any event, attention should be directed to simplifying the Letters Patent system of conveying land. In the interval, secondment of a Department of Justice lawyer to the Secretary of State Department would contribute to this desirable improvement.

INTERNATIONAL LAW

International law work in the government has assumed major proportions and many departments, apart from External Affairs and Justice, are now called upon to negotiate and administer treaties, as well as pass on the legal problems which may arise. These may intermix international, constitutional and private law. Both the Departments of External Affairs and Justice claim final authority in determining international law problems, their conflicting claims to jurisdiction arising out of specific sections of the *Department of External Affairs Act* and the *Department of Justice Act*. Confusion is compounded by the presence of lawyers and other officers scattered throughout other departments and agencies who do extensive international legal work. It is by no means an invariable practice to have trained international lawyers present at conferences where treaties affecting Canada are being negotiated. Nor is there any consistent practice of referring problems arising out of treaties to one authoritative centre.

There is obviously a no-man's land with respect to the adequate provision of international law services which merits attention. A good deal of time of senior civil servants in many departments is taken up with the work attendant on numerous international negotiations. The involvement of departments in this field may be illustrated in summary form as follows:

- The Air Transport Board has the administration of many bi-lateral treaties relating to air traffic.
- The Canadian Maritime Commission is concerned with international maritime law, as is also the Department of Transport.
- The Department of Fisheries has direct interest in at least eight treaties respecting fisheries.
- The Department of Labour participates in the preparation of many labour conventions drafted by the International Labour Office and recommended to signatory countries for adoption.

- The Department of National Defence has international law problems as a result of the Canadian Forces posted abroad.
- The Department of National Health and Welfare has a continuing interest in international movements of narcotics, in water pollution and in quarantine practices.
- The Department of National Revenue is involved in bi-lateral agreements with respect to taxation, and in customs tariff treaties and agreements.
- The Department of Northern Affairs and National Resources is concerned with the application of several treaties with the United States. The Migratory Birds Convention is an example.
- The R.C.M.P. has an interest in international extradition agreements.
- The Department of Secretary of State has international conventions relating to patents and copyrights.
- The Departments of Trade and Commerce and Finance participate in negotiating treaties and agreements with respect to trade, and in the resulting application.

This is not an exhaustive listing but it suffices to point out the range of administrative problems which may arise after treaties or other international agreements are negotiated.

The Department of External Affairs has the only comprehensive library on international law. It has also a Legal Division to which are attached nine legal officers. However, only two serve continuously; the other seven are classified as Foreign Service Officers and are rotated frequently to other posts either at home or abroad. Generally, but not invariably, they have legal training, but service in the Division is regarded only as an incidental training aspect in developing careers as foreign service officers, many of whom are relatively junior when posted to the Division. The Department of Justice, on the other hand, does not recruit specialists in international law. In general, considering the growing burden of international legal work associated with a great variety of commitments by many departments, the current arrangements for dealing with such services are unsatisfactory: they have produced strained relations between Justice and External Affairs; they lack a central focus from which permanent, trained experts can provide the necessary counsel and guidance; and they jeopardize Canada's position when treaties are being negotiated. Your Commissioners have certain specific proposals on this subject in the final chapter of this report.

DEPARTMENT OF NATIONAL DEFENCE—OFFICE OF
THE JUDGE ADVOCATE GENERAL

The legal services required by the Department of National Defence are in some instances similar to those provided for other departments, but in the administration of Service justice the Department's needs are unique. Within the Department of National Defence, a special office of the Judge Advocate General (JAG) serves both civilian and military legal needs. The staff of some seventy lawyers is the largest single group of legal employees in the government—indeed, possibly the largest number of lawyers working within a single organization in Canada.

As senior departmental legal adviser, the JAG performs the same functions as legal advisers in other departments, giving legal advice to the Minister, preparing proposals for legislation, drafting regulations, agreements and documents relating to land acquisition. Land matters are particularly important in the Department because of the many large service establishments in Canada and overseas. There are also legal matters regarding procurement of material, including the checking of specifications and contract demands. Patent, copyright and trade-mark work is also done. Of particular importance is the work done by JAG on claims by and against the Crown arising out of negligence and other torts, out of contracts and leases, and for overpayment of pay and allowances. JAG also advises concerning disciplinary matters and is required to give opinions on, for example, the interpretation of statutes, regulations and orders relating to pay and allowances, boards of inquiry and applications for redress of grievances. He also gives legal aid to members of the Forces and their dependants abroad.

Another major responsibility of JAG is the review of all courts martial. This work is carried on through a courts martial judicial section which advises on petitions for new trials; arranges for hearings before the Court Martial Appeal Court and if necessary the Supreme Court of Canada; and is responsible for the provision, training, and supervision of all Judge Advocates for Courts Martial. Working quite independently of the section dealing with the judicial aspects of courts martial is a section responsible for the conduct of the prosecution of such cases. This section appoints defending officers and supervises those who are prosecuting the case.

In addition, the Judge Advocate General has "Tri-Service administrative functions". Thus, he is Chairman of the Service Pension Board, which determines the actual cause of release of all Service personnel in accordance with the *Canadian Forces Superannuation Act* and the *Defence Services*

Pension Continuation Act. As Director of Estates he is responsible for collecting, administering and distributing the Service estates of officers and men who die during service in the Canadian Forces. Through one of his deputies, JAG serves as Chairman of the Tri-Service Committee on Voting, being responsible for arrangements for taking the Service vote.

2

THE LAWYER IN GOVERNMENT SERVICE

There are approximately 330 persons employed as lawyers in the federal government, of whom sixty per cent come under the jurisdiction of the Civil Service Commission. Although the Department of Justice has an obvious central responsibility for the provision of legal services throughout the government, it actually employs only forty-two lawyers out of the total. Three other departments employ a substantial number of lawyers: National Revenue, Taxation Division (29); Veterans Affairs (54); National Defence (73). The remainder are scattered singly or in small units through several dozen departments and agencies (as indicated in Table 4).

Other officials, with legal training but not formally engaged as lawyers, spend part of their time doing legal work. In addition, a substantial share of the government's legal work is performed on an *ad hoc* basis by legal agents drawn from private practice. The performance of legal agents is examined separately in the next chapter.

LAWYERS IN THE DEPARTMENT OF JUSTICE

The Minister of Justice, by virtue of the *Department of Justice Act*, R.S.C. 1952, is the official legal adviser of the Government of Canada and, as Attorney General, serves as the focal point for the provision of the various legal services discussed in the previous chapter. Assisting him in the discharge of his strictly legal functions is the Legal Branch of the Department under

Table 4 — POSITIONS IN THE PUBLIC SERVICE REQUIRING LAWYERS

(Agencies grouped under associated department)

	<i>Provided by Dept. of Justice</i>	<i>Under the C.S. Act</i>	<i>Exempt from C.S. Act</i>
<i>Privy Council</i>			
Council Office.....	1		
National Research Council.....			1
Atomic Energy Control Board.....			1
Atomic Energy of Canada Limited.....}			
<i>Agriculture</i>			
Department.....	1		
Farm Credit Corporation.....			7
Canadian Wheat Board.....			2
Prairie Farm Rehabilitation—Admin.....			1
<i>Citizenship and Immigration</i>			
Department.....	1	1	
Indian Affairs.....		6	
<i>Defence Production</i>			
Department.....	4		
Canadian Commercial Corporation.....			1
Crown Assets Disposal Corporation.....			1
Defence Construction (1951) Limited.....			2
<i>External Affairs</i>			
Department.....	9		
International Joint Commission.....		1	
<i>Finance</i>			
Department.....	1		
Comptroller of the Treasury.....		1	
Industrial Development Bank.....			23
<i>Fisheries</i>			
Department.....	2		
<i>Justice</i>			
Department*.....	42		
Combines Investigations.....		8	
National Parole Board.....		1	
Royal Canadian Mounted Police.....			3
<i>Labour</i>			
Department.....	2		
Unemployment Insurance Commission.....		10	
Office of the Umpire UIC.....		2	

	<i>Provided by Dept. of Justice</i>	<i>Under the C.S. Act</i>	<i>Exempt from C.S. Act</i>
<i>Mines and Technical Surveys</i>			
Department.....		1	
<i>National Defence</i>			
Department.....		6	
The Armed Forces (JAG).....			67
<i>National Health and Welfare</i>			
Department.....		3	
<i>National Revenue</i>			
Customs and Excise.....		5	
Taxation.....		29	
Board of Broadcast Governors.....		1	
Canadian Broadcasting Corporation.....			3
<i>Northern Affairs and National Resources</i>			
Department.....	1	4	
<i>Post Office</i>			
Department.....		1	
<i>Public Works</i>			
Department.....	2	1	
Central Mortgage and Housing Corporation.....			6
<i>Secretary of State</i>			
Department.....		5	
Custodian of Enemy Property.....			1
<i>Trade and Commerce</i>			
Department.....	1	1	
National Energy Board.....			
<i>Transport</i>			
Department.....	1	4	
Air Transport Board.....		3	
Board of Transport Commissioners.....		2	
Canadian Maritime Commission.....		1	
National Harbours Board.....			5
St. Lawrence Seaway Authority.....			4
<i>Veterans Affairs</i>			
Department.....		22	
Veterans Bureau.....		31	
Canadian Pension Commission.....		1	
		209	128

* Includes officers provided to other departments on full or part time basis.

direct supervision of the Deputy Minister, who is also Deputy Attorney General of Canada.

The Solicitor General, who is a member of the Cabinet, is required to "assist the Minister of Justice in the counsel work of the Department". A major responsibility is that of advising the Cabinet on the exercise of the prerogative of mercy and serving as Acting Minister of Justice in the absence of the Minister.

The forty-two lawyers in the Branch are distributed in seven sections, six of which bear the titles of the major areas into which legal services, as previously described, are subdivided: Civil Litigation, Legislation, Criminal Law, Civil Law, Advisory Services and Taxation (the most recent addition).

The seventh section, known as the Departmental Services Section, is of particular importance to this review. It is through this Section that a number of departments meet all or some of their requirements for legal services by obtaining legal officers on a seconded basis. The nine departments thus serviced are: Agriculture, Citizenship and Immigration, Finance, Northern Affairs and National Resources, Privy Council Office, Public Works, Trade and Commerce, Mines and Technical Surveys, and Transport.

Whenever possible, the Department of Justice provides a lawyer with at least three years' experience on its own staff, although shortage of suitable persons sometimes compels the seconding of a less experienced officer. The usual tour of duty extends at least to four years. The system is readily adaptable to the varying legal requirements of departments. For example, lawyers seconded to Trade and Commerce, Mines and Technical Surveys and the Privy Council Office serve on a part-time basis only. In the Departments of Northern Affairs and National Resources, Citizenship and Immigration, and Public Works, the seconded lawyers serve as heads of the respective legal divisions, with departmental solicitors under them. Another variation is found in Transport, where the seconded Justice lawyer is under a departmental head of the legal division.

The Departments participating in this plan of secondment express satisfaction with the arrangement and your Commissioners revert to it in the closing chapter of this report as a system that warrants extension to many other departments now outside the scheme.

Each of the seven sections in the Legal Branch of Justice, is headed by a Director (one, by an Assistant Deputy Minister) and staffed with from two to nine lawyers. Officers are usually assigned to a particular section, but may also assist with particular tasks in other sections or be transferred from one section to another. Perhaps the most striking feature of the Legal Branch is the large number of subdivisions and the correspondingly large number of

directing staff: in addition to six divisional directors there are three Assistant Deputy Ministers and two Associate Deputy Ministers, all carrying responsibility for one or more aspects of the Branch's legal work. The exigencies of the workload do not necessitate this: the real cause of this minute subdivision of labour is, rather, to overcome modest pay scales by conferring managerial titles on lawyers—a problem to which we revert in a later section of this chapter.

LAWYERS IN OTHER DEPARTMENTS AND AGENCIES

Introduction

Almost sixty per cent of the 295 legal positions in other departments and agencies are located in Ottawa, most of them, with the three major exceptions previously noted, working alone or in small units.

The duties of lawyers vary in each department and agency, but in general they prepare regulations and contracts, interpret statutes and other legal instruments, advise on the disposition of claims, prepare agreements for sale and leases of property to and from the government, and give opinions on problems that arise in the course of administration.

Many lawyers render legal advice that contributes to the formulation of departmental policies, and a substantial number appear before administrative tribunals. They are not always principally concerned, like the Department of Justice lawyers, with determining whether matters referred to them are legal or illegal; rather their function is quite often to devise procedures to implement administrative policies.

Because the Department of Justice supervises all litigation, departmental lawyers, with a few exceptions, are limited to acting as channels of information. Similarly, since criminal prosecutions are a responsibility of the Department of Justice, the departmental or agency solicitor is restricted to procuring the evidence and assisting the agents appointed to conduct the prosecutions. A few departments, notably National Health and Welfare and National Revenue, instruct non-government lawyers in particular cases. As already indicated, the Department of Justice has responsibility for drafting statutes. Since the Minister of Justice is the legal adviser of the Government of Canada, many opinions involving complex or important questions of law are referred directly to the Department of Justice.

The largest group of government lawyers outside the Department of Justice are classified by the Civil Service Commission as Departmental Solicitors. Others fall into several different classifications. Many government lawyers are of course beyond the jurisdiction of the Commission.

Departmental Solicitors

The one hundred and fifty-two positions classified by the Civil Service Commission as "Solicitor" are not organized within a single service, nor are they arranged in strictly comparable ranks in the various departments. Some are termed Legal Advisers, some General Counsel, and so on. As has been mentioned, few departments employ more than two or three. Where the number is larger, individuals are usually scattered through several branches and in most cases at various centres outside Ottawa. Thus the Department of National Revenue has twenty-nine Solicitor positions in Taxation and five in Customs and Excise. Of the twenty-two in the Department of Veterans Affairs, only six are located in Ottawa. The Department of National Revenue (Taxation) has the only substantial group of departmental solicitors centred in Ottawa.

In view of the fragmentation described, opportunities for promotion are inevitably few unless the solicitor turns from the practice of law and rises through the administrative ranks of the Department. There are few promotions through transfer between the departments.

Other Civil Service Legal Personnel

Apart from departmental solicitors, a number of other lawyers are under the jurisdiction of the Civil Service Commission but carry different titles. Several senior lawyers, for example, have been promoted to the administrative rank of "Senior Officer" in order to provide them with higher salaries than is possible in the "Solicitor" classification. Examples are found in the Departments of National Health and Welfare, Veterans Affairs, Department of National Revenue (Taxation) and the Board of Transport Commissioners. While such officers share in the formulation of general policy, they are primarily concerned with legal matters.

The Legal Division of the Department of External Affairs is staffed by seven Foreign Service Officers and two Departmental Solicitors. The F.S.O.'s are career officers who spend, at most, a few years in the Legal Division. Occasionally the staff may include officers without legal training. The Division deals almost exclusively with international law, most problems of domestic law being referred to the Department of Justice.

Investigations to determine whether an offence has been committed under the *Combines Investigation Act* require knowledge of both the law and aspects of economics, although the Combines Branch is in fact a law enforcement agency. Its staff of Combines Investigation Officers therefore includes both

lawyers and economists. An investigation, once completed, may lead to a case before the Restrictive Trade Practices Commission. If the Commission expresses the view that an offence has been committed and a prosecution is decided upon, Combines Investigation Officers assist and supervise legal agents appointed from outside the government service in prosecuting the case. This may include appearing in court with the agents. On appeal, they may themselves appear as counsel. Some of the officers with legal training have left the Combines Branch to join the Legal Branch of the Department of Justice, a practice which merits consideration being given to integrating the two groups within the Department.

Three members of the Royal Canadian Mounted Police have legal training and are engaged in legal work. They serve much as do departmental solicitors in other departments. However, they are not recruited as solicitors under the *Civil Service Act*. The practice has been to send selected members of the Force, with some years of ordinary police service, to law school. They remain members of the Force, with the usual pay and allowances, and expenses at law school are paid by the government. On graduation they are assigned to legal work at headquarters in Ottawa, and after three to five years are promoted to non-legal positions. Such law graduates are not members of a provincial bar nor do they serve Articles to gain experience in a law office. The situation, in some respects, is comparable with that described below in the Judge Advocate General's office of National Defence.

Legal Services for the Department of National Defence are performed by the Judge Advocate General and his staff. With the exception of six civilian positions for solicitors, the approximately seventy lawyers in the Department of National Defence are commissioned officers. Thirty-three lawyers (including the departmental solicitors) are located in Ottawa; the remainder are elsewhere in Canada or attached to Canadian forces abroad, performing both departmental solicitor work and dealing with matters affecting Service justice. Twenty-two of these are staff legal positions that are not strictly professional. Constant rotation between the staff and legal positions is practised. The JAG in Ottawa is responsible to the Minister through the Deputy Minister and the Associate Minister.

Lawyers in Agencies exempt from the Civil Service Act

Several agencies not under the jurisdiction of the Civil Service Commission have legal departments. These include the Canadian Broadcasting Corporation, Canadian Commercial Corporation, Canadian Wheat Board, Central Mortgage and Housing Corporation, Custodian of Enemy Property, National

Research Council, Atomic Energy Control Board, Atomic Energy of Canada Limited, Defence Construction (1951) Limited, Crown Assets Disposal Corporation, Farm Credit Corporation, Prairie Farm Rehabilitation Administration, Industrial Development Bank, the National Harbours Board and the St. Lawrence Seaway Authority. Lawyers in these agencies perform work similar to that of departmental solicitors, but there are variations. Thus Central Mortgage and Housing Corporation appoints and supervises its own legal agents to deal with land transactions. Lawyers in several of the agencies perform senior administrative functions along with their legal duties.

In the foregoing listing, the Industrial Development Bank has the largest legal staff. Of its twenty-three lawyers, one is stationed in Ottawa, the others in cities across the country. Their principal duties are in connection with loans and legal matters incidental thereto.

Although such agencies are not subject to civil service regulation, some use as their model the civil service classifications for lawyers. Others, including Atomic Energy Control Board, Canadian Broadcasting Corporation, Canadian Commercial Corporation, Canadian Wheat Board, Custodian of Enemy Property and Industrial Development Bank, have their own salary scales based on assessment of the individual and the value of his work.

RECRUITMENT

The Civil Service Commission is responsible for filling 209 of the 337 positions identified for purposes of this report as legal officers throughout the public service. Over half the remainder are recruited for the Judge Advocate General's Office of the Department of National Defence through the Services' recruitment schemes. The other 60-odd positions are filled in various ways by agencies outside the jurisdiction of the Civil Service Commission.

The Department of Justice assists the Civil Service Commission in recruiting legal staff for its own purposes and for the other departments coming under the Commission. A senior lawyer of the Department normally sits on the selection boards and makes recruiting visits to law schools. There are no written examinations for Solicitors or Advisory Counsel, but marks and class standing at law school are used by the Examining Board in making a final assessment.

The position of Advisory Counsel, which is a class peculiar to the Department of Justice, is filled by a continuing competition beginning on September 1st of each year. This competition is advertised in newspapers, through law societies and at law schools. Advisory Counsel required for the Civil Law Section are recruited, after public advertisement, by written and oral

examinations. The one-year probationary period for all new entrants to the Department is rigidly enforced.

Recruitment for the more generalized class of Solicitor 1 is aimed primarily at the recent graduates from law schools, but the competition is open to all qualified lawyers. Occasionally, vacancies for solicitors above the grade 1 level are filled by open competition, but the normal procedure is to fill these by promotion from within. Since the legal requirements of various departments are not uniform, the standards set for the Solicitor positions tend to vary and are normally set below those demanded by Justice for its Advisory Counsel class.

Agencies outside the jurisdiction of the Civil Service Commission recruit by a variety of informal procedures. The Industrial Development Bank, for example, advertises in the newspapers and keeps law societies and practising solicitors informed of vacancies. As an indication of its more practical orientation, it is interesting to observe that over half of its 23-member legal staff was drawn from private practice and six came from legal departments of trust companies and corporations. The Central Mortgage and Housing Corporation attracts candidates by a unique system of offering part-time employment to senior law students. This form of apprenticeship may continue until completion of the final bar examinations at which time the candidate may take up permanent employment.

The views of the deans of Canadian law schools, which were canvassed during the course of this inquiry, support the extension of the apprenticeship principle. They recommend that the government should accept new graduates from law schools on a trial basis in the Department of Justice and in other suitable departments. Alternatively, temporary or probationary employment after bar admission could be extended. Law school deans also suggest the need for a good brochure, comparable to that already available from Justice, describing legal careers and prospects in the federal public service. Your Commissioners endorse this suggestion as a necessary adjunct to a recruitment programme designed to attract the more highly qualified graduates in law.

Reference to the need for giving wider publicity to the legal career opportunities in the public service for young lawyers raises the question of whether it is preferable to recruit lawyers with some years experience in private practice. The Department of Justice has built up a competent legal staff, by recruiting more or less directly after bar admission, and by limiting the age of entering candidates to twenty-seven years. Practice in other departments, for example, the Departments of Defence Production and Veterans Affairs,

has been to favour the lawyer with outside experience.

The case for recruiting lawyers with extensive outside experience is that they can be immediately useful to those departments where a general knowledge of commercial legal affairs and practical business matters is required of its solicitors.

On the other hand, the development of an effective legal career service depends on recruiting able younger persons at a junior level and opening up attractive, permanent career prospects by promotion to more senior levels. Younger persons with demonstrated intellectual capacity are adaptable and can be rotated much more readily within the legal service of the government—a valuable asset if the system of secondment from Justice is to be expanded. Moreover, the opportunities for training the younger officer in legal work peculiar to government employment, e.g., drafting legislation or regulations, are enhanced by recruiting younger candidates. A practical consideration lending weight to this form of recruitment is that the salary for the entering grade of Solicitor begins at about \$5,000—an amount scarcely sufficient to attract practising lawyers with some experience. The salary scales at the senior level are also not sufficiently competitive with average earnings of able, experienced lawyers outside to be genuinely attractive to any save a few persons.

In the depression years, conditions favoured the government in recruiting more senior people directly from outside practice. Today, the graduations from law schools barely keep pace with the expansion in population and industry. Consequently, the prospect of attracting senior lawyers to government service tends to be limited to special cases where salaries and other incentives go beyond what is normally available in the civil service proper.

The legal work of departments varies substantially and so, too, do the intellectual attributes and practical experience of the lawyers involved. A single, uniform system of entry, in these circumstances, is not practicable. There will be a continuing need to attract the practising lawyer with outstanding special abilities into government legal offices, but the government would appear to be at a competitive disadvantage in reaching such persons. The necessities of a career legal service, with secondment and rotation, together with the prevailing salary scales, suggest that attention should increasingly be directed to attracting the younger, able law school graduate. Even here, however, there is room for distinguishing between the relatively sophisticated needs of a department like Justice and the more modest qualifications demanded by some departments. A case can be made for several entering grades, to permit a superior candidate to be fitted into the appropriate niche.

CONDITIONS OF SERVICE

Classification and Pay

DEPARTMENT OF JUSTICE: Lawyers in the Department of Justice, classified as Advisory Counsel, are ranked in three salary grades extending from \$4,740 to \$8,340. An additional class of Senior Advisory Counsel provides a top salary of \$13,750. Those with administrative duties are classified as directors, Associate and Assistant Deputy Minister. (Average income of Canadian lawyers for 1959, as released by National Revenue, was \$14,123.) These figures help to explain the proliferation of supervisory positions—thirteen out of slightly more than forty lawyers—for this has been the Department's solution to the problem of holding its more experienced and valuable members against the counter-attractions of salaries outside the government.

The Department of Justice, unlike other departments, has a well-developed legal career service which is successful in bringing junior staff along rather rapidly up to the \$10,000 level. The effective starting salary is actually some \$400 above the minimum of the scale, and for the first five years rapid promotions and salary increments put the Department in a good competitive relationship with private practice. It is between the fifth and tenth year of service that remuneration ceases to be competitive. The result is that over the past five years, the Department has lost five senior counsel. The youthfulness of the legal staff of Justice is noteworthy: its average age is thirty-five and about 90 per cent have been called to the bar since 1951, as contrasted with only 30 per cent of the departmental solicitor classes. The Department of Justice therefore lacks lawyers of long experience—a situation which may account for some departmental allegations of the "academic" quality of the Justice decisions.

The system of overpromotion adopted by the Department creates an unrealistic hierarchy of managerial positions as an escape from the restrictions on top professional salaries; it imposes administrative burdens on senior counsel who should be free to devote full time to their legal advisory functions; and it is a cause of dissatisfaction for other legal staffs. Clearly, the answer is not to be found in forcing administrative or managerial assignments on lawyers.

Improvement of the senior salary scales should enable the Department to overcome a perennial shortage of staff which prevents it from undertaking the drafting of a higher proportion of regulations, participating more fully in tax litigation, and from supplying more lawyers to other departments and agencies.

OTHER GOVERNMENT LAWYERS: Outside the Department of Justice, the largest group of government lawyers fall into seven grades, extending from Solici-

itor 1 starting at \$4,740 to Solicitor 7 with a maximum of \$13,500. Beyond this point, solicitors must move into the Senior Officer category—as five have now done—to obtain higher salaries (\$14,000 to \$18,000). There are too many ranks, reflecting the attempt by subtle refinement of class descriptions to match the varying quality and talents of those employed. Should the proposal for an integrated legal service be adopted, classifications for legal staff should be reviewed with the object of achieving greater uniformity and simplicity, permitting the development of a genuine legal career service and improving both recruiting and promotional prospects, and commensurate salaries.

The pay and classification of lawyers, other than the departmental solicitors, vary considerably. In External Affairs, lawyers are members of a diplomatic career plan and are classified as Foreign Service Officers, ranging in ten classes from \$4,380 to \$18,000. The class of Combines Officers, grades 1 to 6, and Senior Combines Officers, found only in the Combines Investigation Branch, applies equally to lawyers, economists and accountants, and salary rates range from \$4,380 to \$15,000. These grades and salary scales are roughly comparable with departmental solicitors, except that they go higher. For the lawyers employed in agencies falling outside the jurisdiction of the Civil Service Commission, salaries tend to be higher and more competitive with private practice.

In the Judge Advocate General's office of the Department of National Defence, salary and grade are based on military ranks. In the result, the remuneration of JAG lawyers, except for departmental solicitors, is substantially less than for their civilian counterparts, even when subsistence allowance is added to basic pay. Unlike doctors and dentists in the Armed Services, no additional pay is granted in recognition of their professional status. Furthermore, promotion follows a slower course than for lawyers in civilian departments and when, in recent years, significant upward adjustments in the latter's pay were made, no corresponding increase occurred in the Services. These circumstances account for the fact that resignations and retirements have outnumbered new recruits; indeed, in the ten months prior to September 1960 (used as a test), not a single application for enrolment as a legal officer was received by the Armed Services. The early age of mandatory retirement compounds the difficulty: age forty-five to forty-seven for a captain or equivalent and fifty-three to fifty-five for a colonel or equivalent rank—as against the general civil service retirement age of sixty-five.

Either more should be employed as civilians or a professional allowance over and above the basic rates of Service officers should be provided to legal staff, as is now done for doctors and dentists in the Armed Forces. As a

corollary, attention should be directed to the possibility of adjusting pension rights and age of retirement of Service lawyers to make them more nearly comparable with lawyers in the rest of the public service.

Training and Professional Status

There are few formal training courses for lawyers in the public service. The Training and Development Division of the Department of Defence Production offers certain solicitors courses to give an insight into the legal problems encountered in preparing contracts, and in giving opinions.

External Affairs gives Foreign Service Officers, with legal backgrounds, some training by rotating them—sometimes with remarkable celerity—through the Legal Division. This exposure is occasionally supplemented by short courses on international law at the Hague Academy and by attendance at meetings of the International Law Association; in both cases the Department pays all or part of the attendant expenses.

In the Judge Advocate General's office, juniors are re-posted every two or three years, and assignments of lawyers in Ottawa change every one or two years. Rotation of juniors is also practised by the Taxation Division of National Revenue, and the Department of Veterans Affairs treats juniors as trainees in its main regional offices.

In the Department of Justice there is no systematic rotation among the various sections, and training consists essentially in direct and careful supervision of new lawyers by an experienced member of the staff.

It is important for a group with professional credentials to preserve its association with other members of the profession outside the government. All government lawyers, with a few exceptions, have been admitted to practice law in one or more provinces of Canada and are members of their respective bars. As a group, however, they tend to be relatively isolated from the rest of the profession, principally because of their concentration in Ottawa. Thus, less than forty per cent of the government lawyers are members of the bar of the province in which they work. Possibly a third are members of the Canadian Bar Association, though nearly two-thirds of their colleagues in private practice are members. The annual fees of about half the government lawyers are paid by their respective departments—a practice which, if deemed appropriate for some, should be more uniformly applied.

3

THE LEGAL AGENT

INTRODUCTION

At one time legal agents, drawn from private practice on an *ad hoc* basis, performed most of the legal work of the federal government, including the drafting of legislation. They are still used extensively for civil litigation, criminal prosecutions and land transactions. Today, legal agents do about 75 per cent of taxation litigation and 25 per cent of other civil litigation. Complete figures are not available, but it is known that in the regular courts alone during a selected period in 1961 approximately 350 were engaged in the conduct of civil litigation and another 125 in taxation cases. During the calendar years 1959 and 1960, legal agents were retained for 11,913 prosecutions. Land transactions, other than conveyances by the government, are handled almost exclusively by legal agents and, as has been noted, these average about 80 new transactions every month.

Some Crown corporations use legal agents because they have no legal staff of their own. Legal agents may also be employed to represent government departments and agencies for legal work required outside Canada, before boards of inquiry, or in connection with industrial relations matters. However, since these are exceptional cases, this review is confined to their role in civil litigation, prosecutions and land transactions—areas where agents are usually retained.

SELECTION OF LEGAL AGENTS

With very few exceptions, the Minister of Justice appoints or controls the appointment of legal agents, deriving his authority from his power to make

contracts for "the performance of legal services". Even where agencies appoint their own legal agents they frequently consult the Minister before taking any action.

When the services of an agent are required, selection is made from a list approved by the Minister of Justice and the legal branch is advised of the selection.

Ordinarily, agents are appointed on an *ad hoc* basis, but for some criminal prosecutions and land transactions standing legal agents have been appointed. This is usual for opium and narcotic prosecutions, and offences involving the *Unemployment Insurance Act*. In the Yukon and Northwest Territories the equivalent of provincial Crown prosecutors conduct many criminal prosecutions.

Within Canada, ten agencies of government appoint their own legal agents, several acting independently. A number of departments employ agents outside Canada. The Department of External Affairs requires missions to obtain approval from headquarters before they spend more than \$25, but the actual choice of legal agent rests with the mission. Other departments represented abroad may consult the local Canadian mission but make their own appointment for some types of cases; in others, Justice is asked to make the appointment. The variations in practice are accounted for in part by geographical considerations, but it is clear that, despite the existence of some standing instructions on the matter, there is need for a more clear-cut definition of areas of responsibility.

INSTRUCTION AND SUPERVISION OF LEGAL AGENTS

Legal agents employed on an *ad hoc* basis are subject to varying degrees of control. All receive, at a minimum, copies of the printed "Instructions to Agents" from the legal branch of the Department of Justice, which along with the accompanying letter constitute the basis of the contract for the agent's services. Strict supervision and control is maintained by the Department over agents appointed in most civil litigation matters. In taxation litigation, the Department of National Revenue has in the past dealt directly with the agent but with the setting up of the new taxation section in Justice, the practice is changing. It is clear that present arrangements produce much unnecessary duplication of effort, as both National Revenue and Justice become involved in the control and supervision of agents.

In the vast majority of criminal cases, detailed instructions are given by the R.C.M.P., or the particular department or agency affected, and the Department of Justice does not participate. Justice exercises control over all agents

employed for land acquisitions by the Crown or sales of Crown land, except where the transaction involves bodies such as Central Mortgage and Housing Corporation, the Farm Credit Corporation, or the Director of the *Veterans' Land Act*, all of whom deal directly with the legal agents. In many instances the legal staffs of departments and agencies work very closely with the Department of Justice in instructing and supervising legal agents, and in a few cases take full responsibility.

FEES, ACCOUNTS AND PAYMENT OF LEGAL AGENTS

The Deputy Minister of Justice determines the fees and "taxes", i.e., checks and approves, the accounts of legal agents appointed by the Justice Department and also those of some selected by Crown corporations.

The "General Instructions to Agents" contains the tariff of fees and charges applicable throughout Canada for summary conviction cases, acquisitions of land and collections, and applies to agents across Canada in all other matters. The tariff does not refer specifically to civil litigation; in fact rates allowed in such cases often differ from those set out in the "Instructions".

Within the Department of Justice, the directors of the civil litigation, criminal, tax and civil law sections are responsible for taxing accounts presented by legal agents in their respective fields. They exercise a good deal of discretion within the range of fees provided, and no standards or principles are laid down for determining how such discretion should be exercised in any given case. The experience of the agent is taken into account, as well as his geographical location and the nature and difficulty of the legal service he has performed. There is no appeal from the amount allowed.

The administration of justice in the Northwest and Yukon Territories has created problems for the Department of Justice in compensating defence counsel who are appointed to defend indigent persons. As a result of difficulties in securing defence counsel together with the refusal of the judges to try certain types of cases without them, the Department has increased the amounts formerly allowed.

A department or agency with power to appoint a legal agent usually arranges the agent's fees and approves his account. An exception is that accounts for work done for the Director of the *Veterans' Land Act* are taxed by Justice. No uniform pattern of tariffs is used by these agencies. Outside Canada, the department or agency for whom legal work is performed determines the fee and approves the account. External Affairs, in determining what is a fair fee for agents abroad, relies on the recommendations of the mission concerned.

In almost every instance the department or agency for whom the service is performed pays the account, except that the Department of Justice pays the fees of legal agents in criminal prosecutions in the Yukon and Northwest Territories, and several departments and agencies pay certain legal fees incurred by boards or subsidiaries under their jurisdiction or control. In the case of Central Mortgage and Housing Corporation, Farm Credit Corporation and the Industrial Development Bank, the borrower pays the legal fees of agents retained by these corporations.

COST OF LEGAL AGENTS

The federal government is currently spending well over \$1 million a year for legal agents. The following table is based on reports from 52 departments and agencies over a 5-year period:

Table 5—COST OF LEGAL AGENTS EMPLOYED BY THE FEDERAL GOVERNMENT

1956-57	\$1,104,888
1957-58	898,630
1958-59	1,103,644
1959-60	1,273,210
1960-61	1,444,237

It will be observed that there has been a steady increase over the past four fiscal years, a situation which may have a direct relation to the under-staffing of the Department of Justice already mentioned.

CONCLUSIONS

There are, no doubt, areas where the performance of *ad hoc* legal agents has not given the results which could be expected, but this does not mean that legal agents in general are not competent. Even if it were deemed desirable to do away with legal agents, such a change could not become effective immediately: it would be many years before full-time government lawyers could fill the gap. Nevertheless, some changes are desirable.

The Department of Justice insists on close control over all civil litigation, and departmental complaints in this field were relatively few. The Department of Justice is progressively taking over specialized work from legal agents, leaving them with the more routine cases such as automobile claims. The continual change in agents creates problems of fresh instructions and it is obvious that the method of selection is now dated. On the other hand, the competence of standing agents is built up through experience, and the

amount of time necessarily spent in instructing and supervising them is correspondingly reduced. Your Commissioners support the view that *ad hoc* agents should be replaced wherever possible by standing agents.

While the tariff for legal agents allows some elasticity, there is complaint that the tariff is on the low side thus affecting the number of those interested in government work. The tariff should be revised to match normal levels of fees for the different types of legal services performed.

Obviously, the use of agents involves additional paperwork. The agents, the department concerned and Justice, must prepare multiple copies of everything, including each letter. As a result, the files reveal extensive duplication.

Selection of legal agents often entails expensive, time-consuming procedures. When a local sub-division of the R.C.M.P., for example, requires a legal agent for a prosecution it must communicate with headquarters in Ottawa, which in turn writes to the Department of Justice. Justice notifies the R.C.M.P. in Ottawa and they, in turn, notify the local sub-division through the area division. Should the agent refuse the case, the process must be repeated. Meanwhile, the police must seek remands which waste time and are unfair to the accused. There are comparable difficulties in obtaining agents in emergencies, such as when a ship is involved and speedy action is necessary. Long distance telephone calls followed by confirmatory letters through regular channels may be needed—and the end result may be only a small fine. Several departments consider that, since most of the preparation falls on them because of their specialized knowledge, their staff could handle much of the work now done by agents.

It is probable that, in major centres where there is a large and steady demand for legal services, government lawyers operating from branch offices could perform the work more economically than by using the present system of legal agents. Where legal agents continue to be used, the existence of branch offices would permit much closer supervision to be maintained.

In the Territories, distance and sparsity of population raise many problems for the administration of Justice. For example: there are three lawyers in Yellowknife, one of whom acts as Crown Prosecutor. Defence counsel must be selected from the remaining two or from those few lawyers in the provinces who are also members of the territorial bars. There is a comparable situation in Whitehorse. Allowances made by Justice in urban areas of the provinces take no account of long distances, transportation delays, hardship and even dangers which exist in the Territories. A lawyer volunteering to serve as defence counsel may need to make a hazardous flight to a remote region. Although the case may last half a day (for which he would be paid \$50 plus a small allowance for travelling time), it might require him to be away for

five or six days. Under the circumstances, interested counsel and *ad hoc* agents in the Territories are few.

The essential difficulty with respect to the provision of legal services abroad is that the responsibilities of the Department of External Affairs and the Department of Justice and other departments and agencies concerned are nowhere clearly defined. There is confusion over the selection and direction of agents, and over payment of their accounts, which needs to be cleared up. This confusion illustrates the generally unsatisfactory arrangements for providing international legal services which receive fuller consideration in the following chapter.

4

AN INTEGRATED LEGAL SERVICE

INTRODUCTION

The foregoing chapters describe and assess the provision of legal services and problems associated with staffing them throughout the government. At various points references occur to the benefits to be derived from integrating these legal services, coupled with a proposal to set up branch offices. The case for integration and the reasons for making several important exceptions to complete integration now need to be reviewed.

Career prospects, for many lawyers presently employed, are less than satisfactory. In a number of departments small groups of solicitors suffer from professional isolation, and interdepartmental transfers are rare. As a result, professional lawyers may spend unreasonably long periods on legal work which does not fully engage their capabilities. Seniority rather than competence may govern the opportunity for professional development which the more demanding legal assignments represent. The legal workload has its peaks and valleys, so that at times a full-time lawyer cannot be kept busy and at other times there may be need for several.

These circumstances combine to discourage many of the graduates of law schools from entering the public service and contribute to the departure of lawyers from government employment to private practice. When coupled with inadequate salaries for senior legal positions, they inhibit the government's ability to recruit and retain experienced lawyers.

Among the more important tasks of the lawyer in public service, the initial framing of bills and regulations and advising on their application in individual cases demand a special degree of independence for the lawyer, setting him

somewhat apart from the "line" activities of his department. Lawyers often find themselves drawn into the policy-making machinery of their departments, thereby becoming so closely identified with departmental management that their capacity to provide impartial advice becomes impaired. At the other end of the scale, some lawyers perform duties of such routine nature that they could be performed adequately and more economically by clerical employees. When this happens, professional skill tends to deteriorate. Isolated from members of his own profession, the sole lawyer in a department is usually further handicapped by lack of access to that indispensable tool of a lawyer—a good legal library.

The integration of isolated departmental lawyers into a common legal service, revolving around the Department of Justice, appears to your Commissioners to offer the most practicable remedy—if not the sovereign solution—for many of the present afflictions.

In addition to the legal staffs of certain commercially-oriented and independent agencies, your Commissioners would exclude from the proposed integrated service, in whole or in part, the following legal branches of five departments:

- The Judge Advocate General's office in the Department of National Defence.
- The Legal Division of the Department of External Affairs.
- The Legal Branch of the Taxation Division of the Department of National Revenue.
- The Pensions Advocates in the Department of Veterans Affairs.
- The legal officers in the Royal Canadian Mounted Police.

These exclusions are founded on one or more of three factors which make the status of lawyers in these five legal groups rather different from that of other departmental lawyers for whom an integrated service is proposed. First, the body of laws and procedures and the associated legal questions are quite different from the laws and procedures with which a departmental lawyer or a Department of Justice lawyer normally contends: this provides the basic reason for excluding from an integrated service both the international law questions of concern to External Affairs and the military law problems of the Judge Advocate General.

Second, the nature of the work may be such as to require a close identification of the legal staff with officials who are administering the law: to sever

this organic connection would, as has been said, cause the whole function to "bleed". This is the relevant consideration in recommending a partial dissociation from the proposed integrated system of the legal branch of the Taxation Division of National Revenue and the lawyers in the R.C.M.P.

Finally, the function now performed by lawyers may be one which does not necessarily call for professional legal competence but may, in fact, require skills of a different order. This is the reason for excluding the lawyers who are pension advocates in the Department of Veterans Affairs, for their work is primarily of a welfare nature.

THE EXCLUDED LEGAL SERVICES

Office of the Judge Advocate General

The previous description of the staffing and operations of the Judge Advocate General's office demonstrates that the group is large enough to provide a satisfactory, self-contained career for lawyers and that there is a sufficient variety of challenging legal work to draw recruits to the office—provided salary scales are attractive.

In some measure, the work performed by JAG differs little from solicitors work in regular civilian departments. Its unique qualities derive from the application of Service justice, in particular, the conduct of courts martial and the review of decisions rendered by such courts. In effect, JAG acts as both prosecutor and judge for courts martial, a situation which, in the United Kingdom, has given rise to the appointment of a civilian JAG and staff for the purely judicial aspects of the work. In Canada, the office of the JAG is organized so as to provide a sharp separation of judicial and prosecuting roles, each handled by an independent section. There have been no complaints by accused or defending counsel that this juxtaposition of two apparently incompatible functions has worked inequitably. In the Canadian Armed Forces commanding officers dispose of a broader range of minor disciplinary matters than in the United Kingdom. As a result, the volume of courts martial and related legal activity are relatively smaller and it is doubtful whether the situation warrants the appointment of a separate staff for the judicial function.

The principal reason for excepting from the proposed integrated service the office of the Judge Advocate General is the Service status of most of its lawyers. The requirements of the Armed Forces necessitate travel and postings to military camps and establishments in Canada and abroad. Clearly, civilian lawyers, who are not subject to military discipline, cannot satisfactorily fill such a role. Moreover, a principal attribute of the integrated service,

namely its rotational character, would be impaired through the practical impossibility of rotating lawyers in uniform through posts in civilian departments.

One other element of the work performed by the Judge Advocate General's office also favours its continued existence as a separate legal group. Nearly one-third of the staff of the JAG are holding staff positions, whose duties consist largely of interpreting JAG opinions and rulings to staff officers. These positions provide an effective liaison between the central legal branch and the military staff, thereby reducing the number of references to JAG. Service lawyers are essentially an arm of military administration: staff experience is essential for a JAG officer and for the most part it would not be practicable to bring in civilian lawyers to such positions.

However, within the Department of National Defence there are some legal positions which are recruited under the *Civil Service Act* and are not part of the Judge Advocate General's office. These lawyers should be part of the proposed integrated career legal service attached to the Department of Justice.

Department of External Affairs

Earlier in this report, the extensive involvement of a number of departments (other than External Affairs itself) in matters of international law was described. It was further noted that the legal services provided in this special branch of law are far from satisfactory and that collaboration is almost totally lacking.

One way of curing this defect would be to incorporate all lawyers concerned with international law into the proposed integrated legal service, under the Department of Justice. However, international law is distinctly different from the subjects of domestic and constitutional law with which solicitors in Justice and in the other civilian departments must deal. International law is intimately bound up with high policy questions and relationships with other nations. In treaty negotiations particularly, there is need for trained international lawyers to be associated with the negotiators to preserve a balance between policy considerations and legal implications—someone who is familiar with Canada's commitments under other treaties. For these reasons, responsibility for this branch of law should be placed on External Affairs, the department occupying the strategic position in all international negotiations and treaty matters.

This will not counteract the existing unsatisfactory relations which exist between the Departments of External Affairs and Justice; nor will it remedy the current defects which result from the efforts of other departments to meet their own needs for services of this highly specialized type. Substantial re-

forms in the present organization and functioning of External Affairs Legal Division are needed to provide a workable solution.

What is required is a reorganization to meet the twin objectives of providing a focal point for legal services in the field of international law and at the same time promote proper liaison with the domestic legal services. Your Commissioners therefore propose the following arrangement:

- (a) The Legal Division of External Affairs should be headed, as now, by a permanent legal adviser who would have no responsibility (as he now has) for administration or policy decisions outside the operation of the Division. The title of "General Counsel" might more appropriately describe the character of this position than the present title of "Legal Adviser".
- (b) Under the "General Counsel" should be a senior advisory counsel seconded by the Department of Justice and a member of the integrated service. In addition to administrative duties within the Branch, this officer should, in particular, act as a clearing house on matters of domestic law and on references to the Department of Justice. He should have primary responsibility for initial drafting of changes in legislation or regulations. This officer would also provide what is now sadly lacking—a focal point to which references from other departments on questions involving international law would be sent, as well as a central source for experts on treaty matters. The presence of a lawyer seconded from the integrated legal service should promote a better understanding between the Departments of Justice and External Affairs, as well as a co-ordinating point for the currently dispersed efforts of various departments in this specialized area.
- (c) The staffing of the Legal Division by the rotation of Foreign Service Officers—some for extremely short periods—should be modified to build up a core of specialists in international law, permanently resident in Ottawa, and making a career in this special field of law.
- (d) Any other requirements of the Division should be met by assigning Foreign Service Officers qualified to practice law. The posting period should be from four to five years. If more international law training is needed for foreign service officers generally than can be provided under the foregoing conditions, educational leave or special training courses should be employed to meet such need.

We therefore recommend that: A strengthened Legal Division of the Department of External Affairs assume responsibility for co-ordinating the inter-

national legal work of departments and agencies and provide the expert assistance required on such matters as treaty negotiation.

Department of National Revenue (Taxation)

The assumption underlying the proposal for an integrated legal service is that a solicitor-client (department) relationship should be established which will permit the departmental solicitors to give independent advice rather than becoming involved in making policy or in duties of an administrative nature. In a majority of cases, questions of law are incidental to the main programmes of departments. An exception is the subject of taxation where the assessment of income tax and succession duties is the main task of the Taxation Division of National Revenue and where the application of the law affects the rights of individuals. In this sense, the whole assessment procedure may be said to be a legal matter.

Assessment calls for a working partnership between the skilled accountant and the lawyer in which it is impracticable to segregate the two professions. Consequently, in the Taxation Division, the income tax lawyer occupies a position in relation to the operating officials in the Department which differs from the normal, somewhat independent solicitor role in other departments. In recognition of this difference it would be appropriate to designate the tax lawyer as an "Assessment Solicitor". As experts on tax matters, with a daily involvement in administration, they should be classified and paid in such a fashion as to distinguish them from the lawyers in the integrated service.

The "Assessment Solicitor" group needs a head to preserve its status, preferably an assistant deputy minister—an upgrading from its present place in the departmental hierarchy. This group should then be directly involved in the day-to-day administration of assessment, as well as playing a prominent part in policy-making.

The Department will, nevertheless, still require the services of lawyers who are not part of the assessment team to perform the tasks assigned in other departments to departmental solicitors: for example, drafting legislation and regulations. This function should be staffed by lawyers seconded from Justice as part of the integrated service. They would serve the Deputy Minister (Taxation) in precisely the same manner as other departmental solicitors serve their respective departments. In particular, these lawyers should be available to render opinions for the benefit of the assessment staff, but should remain aloof from policy-making commitments of the Department.

In the conduct of litigation, there is a need for effecting accommodations between the Taxation Division and the Department of Justice. Co-operation can best be achieved by having the group of seconded lawyers in the Taxation Division conduct tax cases before the Tax Appeal Board, the Exchequer Court and beyond, either directly or by arrangement with outside counsel, referring important legal questions to Justice wherever necessary.

Your Commissioners recognize that, in recommending what is, in effect, two legal services within a single department, there are obvious possibilities of confusion and duplication of effort. However, a clear recognition of the distinction between the functions of the two should provide a logical basis for determining where each fits in specific cases: the role of the "assessment solicitor" is primarily to help formulate and carry out government policy and procedures in tax matters; the legal adviser, on the other hand, should acknowledge no responsibility for administrative decisions but should act in a strictly advisory capacity to the Department and act as advocate in the courts.

Finally, in the periodic revisions of the taxing statutes, there must be effective consultation among the Departments of Finance, Revenue and Justice. The "legal adviser" branch in Taxation should have the responsibility for seeing that such consultation is effective and that the bills submitted to the House of Commons are free from serious flaws. In this process, the specialized knowledge acquired by "assessment solicitors" from their experience in administering the legislation will form a necessary supplement to the work of the legal advisers.

Department of Veterans Affairs

Within the Department of Veterans Affairs, approximately one-half of the fifty-odd lawyers are employed on the regular legal solicitor work for the benefit of the Crown; the remainder, in the Veterans Bureau (known as Pensions Advocates), are primarily concerned with defending the interests of veterans.

Your Commissioners recommend that the departmental solicitor group be incorporated with the proposed integrated legal service under Justice. The Pensions Advocates should not, however, form part of the integrated service. A large portion of the functions of Pensions Advocates is essentially welfare work which could be performed equally well by laymen.

Where this special type of assistance is rendered to veterans by non-lawyers, it would be desirable to permit the latter access to departmental solicitors. In such cases, the duty of the departmental solicitor should be

limited to an interpretation of the law, and any identification of the solicitor with the merits of a particular claim should be avoided.

Royal Canadian Mounted Police

As indicated above, the Force meets its legal requirements—primarily for crime report analysis—by paying for the legal education of selected members of the staff. Since these officers, after their legal training, are not kept permanently on legal work and since there is a continuing need to refer many matters to the Justice Department, it is proposed that a representative of the integrated legal services be seconded to the Force to head up the legal work. The existing pattern of legal training and rotation would not be disturbed, but more effective liaison with the Department of Justice would be maintained.

CONCLUSION AND RECOMMENDATIONS

The implications of your Commissioners' recommendation of an integrated legal service—subject to the five exclusions specifically spelled out in previous sections of this chapter—should by now be quite clear. Approximately one hundred lawyers in departments and agencies will be brought under the aegis of the Department of Justice. The proposal complements the recommendations of your Commissioners (developed at length in Volume 1) for giving departmental managers a freer hand than they have hitherto enjoyed in managing their own operations. The value of a lawyer depends on the preservation of his independence from the operating necessities of his department. Secondment from Justice should help to preserve this independence, while opening up opportunities for professional advancement in a legal career service for those solicitors who have, to the present, been locked in isolated departmental compartments.

An integrated legal service will introduce greater flexibility to meet the intermittent legal needs of some departments (without necessarily employing a lawyer full-time). Extra staff will be available for emergencies. Other special requirements, such as the need for bilingual lawyers or those skilled in the Civil Code of the Province of Quebec, can be more readily met. When replacements have to be made, a new man seconded from Justice will have all the resources and experience of the parent department to fall back on.

Integration of legal services should lead to an improvement in the important matter of rendering legal opinions, where current practices cause duplication, delay and a tendency for opinions to be given at arms length from the operat-

ing departments. Rotation of Justice lawyers into departments and back to the Department of Justice should bring a fresh touch of reality to the oft-times academic tone of Justice opinions and, at the same time, maintain in the departments the appropriate aura of neutrality required in rendering impartial legal advice. Formal references to Justice should be reduced and, at the same time, the Department should be more accessible than it now is to the seconded lawyers who are serving the operating departments.

Able young graduates in law should be eager to seek a career in an integrated service which offers enlarged prospects of varied and interesting legal work, coupled with a simpler classification and an up-grading of salaries at the senior professional level.

The Department of Justice will need to be strengthened in order to assume the task of seconding legal staff, on a rotational basis, to the various departments. In addition to the career-planning and development function, implicit in this scheme, the Department will have, in conjunction with the Civil Service Commission, the responsibility for conducting a vigorous recruitment programme. Moreover, an important responsibility of the Deputy Minister of Justice, under an integrated system, will be to take cognizance of organizational or procedural defects in the legal services within departments which were occasioning delays or giving rise to complaints that the services provided to the public were less than satisfactory. The Department of Justice would, under such circumstances, advise and assist in the task of smoothing out these defects and seeing that service to the public is improved.

The proposed integration of legal services, in effect, simply confirms and extends the current practice of seconding Justice lawyers to certain departments. Broadening out this practice to include other departments can be accomplished only by a readjustment which will permit the gradual absorption of existing departmental legal staff. It is vital, in your Commissioners' view, to establish the principle of integration at once, so that the Department of Justice can assume charge of the long-term programme of consolidation and improvement. An immediate review of existing classifications and pay scales is required so that a new classification for the integrated service can be quickly established and legal staffs "slotted" into their appropriate grades, on the basis of the salary earned at the time of transfer.

The integrated legal services should include the legal staffs of all departments and agencies save those which, for reasons of public policy or because they are engaged in activities of a commercial nature, have been given a degree of independence from the civil service proper. For reasons already stated, the legal staffs of five departments or agencies should also be excluded, in part, from the integrated service.

We therefore recommend that: Subject to the exclusions specified in this report, the Department of Justice assume responsibility for an integrated legal service embracing all legal staffs of departments and agencies.

Two other recommendations of your Commissioners bear a close relationship to the major proposal for an integrated service. Previous reference has been made to the merits of setting up branch legal offices in centres where there is a large enough volume of legal work to sustain such an operation. Implementation of this suggestion is independent of the proposed plan for an integrated legal service. However, it is clear that integration would facilitate the servicing of the legal needs of many regional offices of other departments by the branch offices. In particular, it would improve control and instruction of standing or *ad hoc* legal agents handling land transactions and civil litigation in centres where branch offices were established.

We therefore recommend that: Consideration be given to establishing branch legal offices of the Department of Justice in centres across Canada where the volume of work justifies such action.

The volume of legal work in the Yukon and Northwest Territories and the problems of administration stemming from the remoteness of these areas from Ottawa, are such as to warrant the posting, in each Territory, of a Department of Justice legal officer. His functions would include: civil litigation; preparation of Ordinances; acting as Crown prosecutor; and, more generally, providing the nucleus for an Attorney General's Department. Such a step would be part of a broader re-arrangement of administrative operations in the North which are considered at length in Volume 5 of your Commissioners' reports.

We therefore recommend that: A Department of Justice legal officer be posted, on a rotational basis, in each of the Territories.

INDEX

INDEX

A

ACCOMMODATION, floor space and estimated costs, 54, 55; in Ottawa area, 55; cost calculations in the Estimates, 57; food services, 342-344; Civil Defence College, 343; Laurentian Terrace, 343, 344; Deep River, 344; recommendations, 344.

ACCOUNTING, operation of watercraft, 193; Printing Bureau standards, 291; Printing Bureau accrual accounting, 294; faulty cost information, 321.

ADCOM, re-engineered to serve SAGE, 240-243.

ADVERTISING, audit of accounts, 281.

ADVISORY SECTION, Department of Justice, 383.

AERONAUTICS ACT, 34.

AGRICULTURE, DEPARTMENT OF, real property operations, 26; construction and acquisition of property, 44; operation of vehicles, 168; departmental investigators, 371.

AIR CONDITIONING, an equivocal policy, 55.

AIR DEFENCE COMMUNICATIONS SYSTEMS, 240-243.

AIR-GROUND-AIR, three communication systems, 234.

AIR MOVEMENTS INFORMATION SERVICE, 235.

AIR OPERATIONS FIXED NETWORK, 233.

AIR TRANSPORT BRANCH, Department of Transport, 42, 43; workshops, 329.

AIR TRAFFIC, control interphone, 224; control centres, 233.

AIR TRANSPORT COMMAND, 152, 359.

AIRCRAFT, operations, 147; Eldorado Aviation Limited, 198; Department of Transport, 198; functions and usages, 198; control and management, 200; Royal Canadian Mounted Police, 201; the charter of aircraft, 202; Air Transport Command —R.C.A.F., 203; the basic problem, 206; recommendations, 201, 202, 207.

ALASKA HIGHWAY, construction and maintenance costs, 357.

APPRaising OF CIVIL PURCHASING, 91.

ARMAMENT DEPOTS, 354.

ARMED FORCES, acquisition and upkeep of lands, 60; Construction Programme Service Committee, 60; procurement and materials management for defence, 116; nature of defence procurement, 117; travel and removal, 164; movement of household effects, 166, 167; operation of vehicles, 178; telecommunications, 217-248; the "make or buy" problem, 352-359; Army Survey Establishment, 358.

ARMY, inventories, 134.

ARNPRIOR, ONTARIO, catering costs at Civil Defence College, 343.

ATLANTIC PROVINCES, national parks regional management, 39.
ATOMIC ENERGY OF CANADA LIMITED, purchasing and supply, 77; residential accommodation in Deep River, 344.
AUDIT, freight, express and cartage, 162, 163.
AUDITOR GENERAL, control and review of travel expense claims, 166.
AUTOMATION, for air traffic control and meteorological services, 235.

B

BEAVERLODGE MINE, 350.
BELL TELEPHONE COMPANY, 228.
BILL OF RIGHTS, 284, 385.
BOARD OF STEAMSHIP INSPECTION, recommendation, maintenance of watercraft and shipyard repairs, 196; cost of inspection operations, 339.
BOOKSTORES, government owned, 300-302.
BRITISH FOREIGN OFFICE, telecommunications services, 245.
BRITISH NORTH AMERICA ACT, 370.
BUILDING AND CLEANING MAINTENANCE, 331.
BUILDING CONSTRUCTION BRANCH, Department of Public Works, 42.

C

CANADA GAZETTE, 282, 284, 287, 288, 290, 303, 384, 385.
CANADA SHIPPING ACT, 339.
CANADIAN ARMY SIGNAL SYSTEM, 237.
CANDIAN ARSENALS LIMITED, procurement and materials management for defence, 117.
CANADIAN BROADCASTING CORPORATION, telecommunications operators, 219; rentals paid, 221; high level of efficiency in all aspects of telecommunications operations, 245; experience in leasing practices, 248; staging of television programmes, 345; video-tape and film production, 346, 347.
CANADIAN COMMERCIAL CORPORATION, procurement and materials management for defence, 117.
CANADIAN GOVERNMENT SPECIFICATIONS BOARD, purchasing and supply, 86, 92, 93; specifications, 86, 87, 97; conclusion and recommendations, 141.

CANADIAN HYDROGRAPHIC SERVICE, operation of watercraft, 186.
CANADIAN NATIONAL INSTITUTE FOR THE BLIND, cafeterias managed by, 343.
CANADIAN NATIONAL RAILWAYS, real property operations, 26; telecommunications, 217.
CANADIAN OVERSEAS TELECOMMUNICATION CORPORATION, 217.
CARTAGE, FREIGHT, EXPRESS AND, direct purchases of service, 154; existing arrangements, 155; commercial traffic management, 155; traffic management in the Federal Government, 157; transportation and supply, 160; review of charges, 162.
CATALOGUES, government publications, 300.
CENTRAL MORTGAGE AND HOUSING CORPORATION, appraisal of rentals charged, 33; housing construction, 61; Laurentian Terrace accommodation, 343.
CENTRAL PURCHASING DEPARTMENT, transportation and supply, 161.
CENTRAL PURCHASING ORGANIZATION, conclusions and recommendations, 138.
CHANCERIES, foreign sites acquired, 29.
CHARTER, OWNERSHIP OR, operation of watercraft, 185.
CHIEF ELECTORAL OFFICER, institution of prosecution, 372.
CIVIL DEFENCE COLLEGE, catering costs, 343.
CIVIL LAW SECTION, Department of Justice, 383.
CIVIL LITIGATION, representation of the Government and system of handling, 378-382; Taxation Division, Department of National Revenue, 380; Tax Appeal Board, 381; Civil Litigation Section, Department of Justice, 282.
CLAIMS, by or against the Crown, 374; regulations, 374; approval of Treasury Board for settlement, 375; motor vehicle claims, 376; National Defence claims statistics, 377; present practices not efficient, 378; suggestions by Commissioners, 378.
CLEANING OPERATIONS, annual bill and persons employed for, 58.
COAST GUARD SERVICE, recommendations, 187.
COMMERCIAL BOOKSELLERS, sale of government publications, 301.
COMMERCIAL CARRIERS, amounts paid to, 151; freight, express and cartage, 154; operation of aircraft, 206; leasing of communications

- facilities, 219, 227; telecommunications services offered by, 252.
- COMMERCIAL PRINTERS, quality of work contracted out, 285.
- COMMERCIAL PRINTING, utilization of, 278, 280, 281, 288, 289, 290, 293, 305, 306.
- COMMERCIAL TRAFFIC MANAGEMENT, freight, express and cartage, 155.
- COMMUNICATIONS, administrative, 218, 227; objectives, 221; improved technology, 222; service and economy, 223; needs of national development, 225; existing control procedures, 225; telephones, 227; telegraph and teletype, 229; Administrative Telecommunications Agency recommended, 232; special communications, 233-250.
- COMPTRROLLER OF THE TREASURY, control and review of travel expense claims, 166; audit of advertising accounts, 281.
- CONSOLIDATION, of a supporting service, 14; of government traffic, 158; of operation of watercraft, 194.
- CONSTRUCTION, civil departments and agencies, 41-53; outside Canada, 44; planning and construction organizations, 45; professional and technical skills, 46; Department of Public Works responsible, 47, 48; construction programming, 48; contracting, 49; low bidders, 50; prime contractors, 51; public competition, 51.
- CONTRACTORS, selection of contractors, 51.
- CONTRACTS, legal assistance in drafting, 386.
- CONTROL PROCEDURES, telecommunications services, 225.
- COSTS, transportation, 151; freight, express and cartage, 158; charges by Printing Bureau, 289; costing procedure, Printing Bureau, 294; secondary activities, 323.
- COURT MARTIAL APPEAL COURT, 391.
- CRIMINAL CODE, 371.
- CRIMINAL LAW, administration, 370.
- CRIMINAL PROCEEDINGS, division of responsibility in prosecutions, 370.
- CROWN ASSETS DISPOSAL CORPORATION, disposal of lands, 31, 36; exceptions to departmental purchasing, 90; recommendations, 142; service workshops, 356.
- CROWN CORPORATIONS, real property operations, 26, 35; procurement of printing, 279.
- CRYPTOGRAPHIC DEVICES, 246.
- CYPHER EQUIPMENT, 222, 246.
- D**
- DEEP RIVER, residential accommodation, 344.
- DEFENCE CONSTRUCTION (1951) LIMITED, transfer of personnel and functions suggested, 63; procurement and materials management for defence, 117.
- DEFENCE INDUSTRIAL RESEARCH PROGRAMME, 132.
- DEFENCE PROCUREMENT, role of the Department of National Defence, 120-122; Department of Defence Production procedures, 124; relations with suppliers, 125; appraisal of Department of Defence Production, 131.
- DEFENCE PRODUCTION ACT, procurement and materials management for defence, 116; nature of defence procurement, 117; purchase of communications equipment, 225.
- DEFENCE PRODUCTION, DEPARTMENT OF, contracting for construction, 49; exceptions to departmental purchasing, 90; defence procurement, 120; appraisal of functions, 131; department renamed, 141; operation of vehicles, 168; communications center, 229.
- DEFENCE RESEARCH BOARD, nature of defence procurement, 118.
- DEPARTMENTAL PURCHASING, EXCEPTIONS TO, 90.
- DEPARTMENT OF JUSTICE ACT, 370.
- DEPRECIATION, transportation, 152.
- DEVELOPMENT ENGINEERING BRANCH, Department of Public Works, 42.
- DIRECT DISTANCE DIALLING, 229.
- DIRECTOR AND SUPERINTENDENT OF PRINTING, 278, 297, 306, 307.
- DIRECTORATE OF INTERSERVICE DEVELOPMENT, recommendations, 142.
- DISCOUNTS, purchasing and supplies, 92; to commercial booksellers, 301.
- DOCKYARDS, 354.
- DOMINION BUREAU OF STATISTICS, publications, 288.
- DOMINION LIGHTS HOUSE DEPOT, 328.
- DREDGING, 332.
- DWELLINGS, leasing to individuals and business enterprises, 32.
- E**
- ECONOMIES, in purchases and supplies, 79; in freight, express and cartage, 156; in telecommunications, 224.

- ECONOMY ACT IN THE UNITED STATES, routine transfer methods, 96.
- ELDORADO AVIATION LIMITED, operation of aircraft, 198, 350.
- ELDORADO MINING AND REFINING LIMITED, 350.
- EMERGENCY NATIONAL TELECOMMUNICATIONS ORGANIZATION, 253.
- EMPIRE BUILDING, 320.
- EMPLOYEES' VEHICLES, OFFICIAL USE OF, ownership or hire, 173.
- EMPLOYMENT, commercial and industrial activities in government, 317; military employment in secondary activities, 353.
- EXCHEQUER COURT, negotiated settlements, 29.
- EXPROPRIATION, forced possession by the Crown and out-of-court settlements, 29.
- EXPROPRIATION ACT, 34.
- EXTERNAL AFFAIRS, DEPARTMENT OF, real property operations, 26, 28; foreign sites acquired, 29; construction activities, 44; travel and removal, 164, 165; movement of household effects, 166; communications operators, 219; external communications, 245; system efficiently operated, 246.
- EXTERNAL SUPPLIERS, how to supervise, 320.
- F
- FAC SIMILE, for the transmission of pictorial reproductions, 218; of weather maps, 234.
- FEDERAL PROPERTY, estimated worth, 25, 26; maintenance, 27; accounting, 27; rentals unduly low, 33; recommendations, 35, 36.
- FIELD OFFICES, teletype service, 230, 232.
- FILM PRODUCTION, 346; *see also Television and Film.*
- FINANCIAL ADMINISTRATION ACT, purchasing and supply, 77; regulation of purchasing, 82; materials management, 99.
- FISHERIES, DEPARTMENT OF, operation of watercraft, 182; ownership or charter, 185; patrol vessels, 187; departmental investigators, 371.
- FISHERIES RESEARCH BOARD, operation of watercraft, 183; ownership or charter, 185.
- FOOD SERVICES, 342, 343.
- FOREIGN TRADE MONTHLY, 288.
- FORMS, responsibility for procurement, 307.
- FREIGHT, EXPRESS AND CARTAGE, direct purchases of service, 154; existing arrangements, 155; commercial traffic management, 155; traffic management in the Federal Government, 157; transportation and supply, 160; review of charges, 162.
- G
- GATINEAU PARK, maintenance of, 335.
- GEOLOGICAL SURVEY BRANCH, use of vehicles, 170.
- GOODS AND SERVICES, expenditures on, 317; "make" rather than "buy" basis for decisions, 319; purchasing procedures, 321.
- GOVERNMENT ACCOUNTS, form of, 322.
- GOVERNMENT CONTRACTS, role of private enterprise, 319.
- GOVERNMENT CONTRACTS REGULATIONS, 82.
- GOVERNMENT MOTOR VEHICLE COMMITTEE, operation of vehicles, 169, 177, 179.
- GOVERNMENT TELEPHONE SERVICE OFFICE, 227-230, 239.
- GOVERNMENT TRAVEL REGULATIONS, operation of vehicles, 173.
- GREEN BELT, (OTTAWA) maintenance of, 335.
- H
- HARBOURS AND RIVERS BRANCH, Department of Public Works, 42.
- HIGHWAYS, *see Roads.*
- HOOVER COMMISSION, General Services Administration, 14, 15.
- HOUSEHOLD EFFECTS, movement and removal, 166.
- HUDSON'S BAY COMPANY, 247.
- HUSBANDING, operation of watercraft, 190.
- I
- INDIAN AFFAIRS BRANCH, construction activities 1960-61, 44.
- INDIAN AND FOREST RESERVES, 31.
- INSPECTION, purchasing and supply, 87.
- INTEGRATION, of communications services, 224; of telephone service, 230; of planning and management of telecommunications systems, 249.
- INTERNATIONAL CIVIL AVIATION ORGANIZATION, 234.
- INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 339.

INTERNATIONAL LAW, general, 389; conflict of authority, 389; departments involved, 389; library on, 390; Legal Division of the Department of External Affairs, 390.

INVENTORIES, materials management, 108; Royal Canadian Navy, 134; Army, 134; Royal Canadian Air Force, 134; Printing Bureau publications, 301.

INVESTIGATORS, departmental, 371.

J

JOINT TELECOMMUNICATIONS COMMITTEE, 237.

JUDGE ADVOCATE GENERAL'S OFFICE, empowered to settle claims, 375; functions and responsibilities, 391.

JUSTICE, administration of, 370; in Yukon and Northwest Territories, 373; conclusions, 374.

JUSTICE, DEPARTMENT OF, operation of vehicles, 162; Criminal Law Section, 371; institution of the prosecution, 371; settlement of claims, 375; motor vehicle claims, 376; civil litigation, 378-382; drafting of Statutes, 383; Regulations, 384; land transactions, 386-389; International Law, 389-391; lawyers in, 393; Legal Branch sections, 396; classification and pay of lawyers, 403.

L

LABOUR, DEPARTMENT OF, operation of vehicles, 168; *Labour Gazette*, 288.

LAND, acquisition of, 28-30, 386; Treasury Board approval, 28; expropriation of, 29; disposal of, 30-32; grants in lieu of taxes to municipalities, 31, 58; the concept of ownership, 31; surplus declarations, 32; existing disposal system, 32; leasing of, 32-33; low rentals, 33; land use, 33; land legislation, 34, 386; special purpose lands, 36; national parks, 31-37; recommendations, 35; surveys, 338; legal and special transactions procedures, 386-388.

LANDS SECTION, Department of Justice, establishment of, 388.

LAURENTIAN TERRACE, accommodation, 343.

LAWYERS, number employed, 393; in the Department of Justice, 393; in all depart-

ments, 394, 395, 397; other civil service legal personnel, 398; in agencies exempt from the Civil Service Act, 399; recruitment, 400; classification and pay, 403; training and professional status, 405.

LEASED PREMISES, may be false economy, 56.

LEGAL AGENTS, types of, 373; in Quebec, 373; role, 406; selection of, 406; instruction and supervision of, 407; fees, accounts and payments of, 408; cost of, 409; conclusions, 409.

LEGAL BRANCH, Department of Justice, 396.

LEGAL CAREER, opportunities in the public service, 401.

LEGAL SERVICES, 360-421; required by the Government, 369, 370; the lawyer in government service, 393-405; the legal agent, 406-411; integration of, 412; departments and agencies excluded, 414-419; recommendations, 416, 421.

LEGAL STAFFS, needed by the Government in various proceedings, 382; recruitment of, 400.

LIBRARIES, government publications depositaries, 300.

LIBRARY OF PARLIAMENT, 281.

LITIGATION, see *Civil Litigation*.

LIVING ACCOMMODATION, 343.

M

MAINTENANCE AND REPAIR, operation of vehicles, 174; of watercraft, 188, 189.

MAKE OR BUY, 311-358; the use of outside sources, 16; in the field of public construction, 50; cleaning operations, 58; printing services, 288; general observations, 309-359; nature of the problem, 317-324; contracting out, 322; recommendations, 323; workshops, 325-330; real property maintenance, 331-336; miscellaneous services, 337-341; accommodation and food services, 342-344; television and film, 345-348; special corporate activities, 349-351; competitive operations of the Department of National Defence, 352-359; conclusion, 359.

MAPS, map printing, 278; production, 337, 338; National Defence mapping operations, 358.

MARINE SERVICES, DEPARTMENT OF TRANSPORT, Marine Service Branch, 43; workshops, 328, 339.

MARINE SYSTEMS, teletype, telephone and radio communications, 234.

MARITIME MARSHLAND REHABILITATION ACT, 44.

MATERIALS MANAGEMENT, Financial Administration Act, 99; description of civil materials management, 99; receipt and acceptance, 110; storage and issue, 110; distribution, 111; department warehousing organization, 112; appraisal of civil materials management, 113; conclusions, 115; in the defence sector, 133.

METEOROLOGICAL SYSTEMS, teletype, facsimile and radio communications, 234; long range planning, 236.

MICROWAVE SYSTEMS, 222.

MID-CANADA (early warning) LINE, 240, 243.

MILITARY TRAFFIC, freight, express and cartage, 159.

MINES AND TECHNICAL SURVEYS, DEPARTMENT OF, operation of watercraft, 182; ownership or charter, 185; map printing and publishing, 279, 337, 338; Mines Branch workshops, 327; land surveys, 338.

MONTREAL AIRPORT, cost of construction, 51.

MOTOR VEHICLE CLAIMS, 376.

MUNICIPAL GRANTS ACT, 34; administration by Public Works suggested, 58, 68.

MUNICIPALITIES, grants in lieu of taxes to, 31, 58.

MUNITIONS AND SUPPLY, DEPARTMENT OF, procurement and materials management for defence, 116.

N

NARCOTIC CONTROL DIVISION, Department of National Health and Welfare, 372.

NATIONAL CAPITAL COMMISSION, real property operations, 26, 28; real property maintenance, 335.

NATIONAL DEFENCE, DEPARTMENT OF, real property operations, 26, 28, 36; responsibility for defence construction, 46; purchasing and supply, 77, 87; procurement centralized, 78; regulation of purchasing, 82; Inspection Services, 87;

exceptions to departmental purchasing, 90; materials management for defence, 116; defence procurement, 117, 120; NATO, 118; freight, express and cartage, 154, 155; traffic management, 157; transportation and supply, 162; review of charges, 162; the use of vehicles, 172; planning, provision and control of departmental telecommunications, 236-243; printing plants, 278; competitive operations, 352-354; Royal Canadian Navy, 354-357; construction and maintenance of real property, 357; supporting services, 357; transportation, 358; recommendations, 357, 358, 359; claims order, 375; claims statistics, 377; Office of the Judge advocate General, 391.

NATIONAL FILM BOARD, film making activities, 347.

NATIONAL HARBOURS BOARD, purchasing and supply, 77; operation of watercraft, 186.

NATIONAL HEALTH AND WELFARE, DEPARTMENT OF, catering costs at Civil Defence College, Arnprior, Ontario, 343.

NATIONAL PARKS, 31-37.

NATIONAL RESEARCH COUNCIL, purchasing and supply, 86; specifications, 86, 87, 97; procurement of printing, 279; workshops, 326.

NATIONAL REVENUE, DEPARTMENT OF, (Taxation Division), investigation of offences, 371; Civil litigation, 380.

NEW TOWNS ACT, PROVINCE OF ALBERTA, 40. NORTH, see *The North*.

NORTH ATLANTIC TREATY ORGANIZATION, (NATO), defence procurement, 117, 118.

NORTHERN ADMINISTRATION BRANCH, engineering division, 44.

NORTHERN AFFAIRS AND NATIONAL RESOURCES, DEPARTMENT OF, real property operations, 26; administers public domain, 28; National Park Service, 36; national parks management, 31-37; purchasing offices, 83; freight, express and cartage, 152; communications in the North, 247; real property maintenance, 333-335.

NORTHERN TRANSPORTATION COMPANY LIMITED, 350.

NORTHWEST HIGHWAY, maintenance, 357.

NORTHWEST TERRITORY, administration of justice, 373.

NUCLEUS, danger of "The Nucleus Argument", 320.

O

OFFENCES, investigation of, 371.

OFFICE MACHINES, present and suggested responsibility for procurement and servicing, 282, 285, 307.

OFFICE OF THE JUDGE ADVOCATE GENERAL, Department of National Defence, 391; functions and responsibilities, 391.

OFFICE SUPPLIES, departmental warehousing organization, 112.

OTTAWA, exhibition grounds partly on federal property, 32; maintenance of the Green Belt area and Gatineau Park, 335.

OTTAWA CIVIL SERVICE RECREATIONAL ASSOCIATION, fees of private caterers to, 343.

OUTSIDE PRINTING PRODUCTION BRANCH, Printing Bureau, 282.

OVERSEAS TRAVEL, travel and removal, 165.

OWNERSHIP, a concept of, 31; operations of vehicles, 173; of watercraft, 185.

P

PARK MANAGEMENT, managers 38; superintendent, 39.

PARLIAMENT, printing requirements, 284-300.

PATRONAGE, purchasing and supply, 80.

PENITENTIARIES, planning and construction of, 46.

PHOTOGRAPHIC ESTABLISHMENT (R.C.A.F.), Rockcliffe, Ontario, 358.

PLANT STUDIES, Printing Bureau, 291.

POLYMER CORPORATION LIMITED, 349.

POOLING ARRANGEMENTS, deployment of specialists, 14.

PORT-AUX-BASQUES, construction of ferry facilities, 47.

PORT HOPE, ONTARIO, 350.

PORT RADIUM, N.W.T., 350.

POSTAL GUIDE, 288.

POST OFFICE, DEPARTMENT OF, purchasing offices, 83; investigation of offences, 371.

PRAIRIE FARM REHABILITATION ACT, 44.

PREScott MARINE AGENCY, 328.

PRICING TACTICS, discriminatory, 320.

PRIME CONTRACTORS, 51.

PRINTING AND PUBLISHING, 271-307.

PRIVATE ENTERPRISE, role of in Government contracts, 319.

PROCUREMENT, centralization of, 78, 79; materials management for defence, 116.

PROCUREMENT, PURCHASING AND STORES BRANCH, Printing Bureau, 282.

PRODUCTION BRANCH, Printing Bureau, 281.

PRODUCTIVITY AND MORALE, adequate accommodation impact on, 54.

PROPERTY OPERATION—CIVIL DEPARTMENTS, standards of accommodation, 54; administrative procedures, 57; foreign operations, 59.

PROPERTY OPERATIONS—NATIONAL DEFENCE, planning and construction, 60; operation, maintenance and organization, 62; recommendations, 64.

PROSECUTIONS, institution of, 371, decision to prosecute made by, 372; conduct of, 372.

PUBLIC ACCOUNTS, 288.

PUBLICATIONS, departmental warehousing organization, 112; methods of distribution, official catalogues and price lists, volume of sales, 300; government bookstores, 301; commercial booksellers, 301; free distribution, 302; pricing and financing, 303; recommendations, 304; procurement of print, 304.

PUBLICATIONS BRANCH, Printing Bureau, 282.

PUBLIC COMPETITION, some of its disadvantages, 51.

PUBLIC DOMAIN, administered by Northern Affairs Department, 28.

PUBLIC INFORMATION SERVICES, new responsibilities to Queen's Publisher, 299.

PUBLIC INTEREST, in national and international communications, 225.

PUBLIC LANDS GRANTS ACT, 31.

PUBLIC PRINTING AND STATIONERY ACT, 277, 278, 281, 285, 292.

PUBLIC PRINTING AND STATIONERY, DEPARTMENT OF, purchasing and supply, 77; procurement centralized, 78; exceptions to departmental purchasing, 90; appraisal of existing central purchasing agencies, 95, 96; departmental warehousing organization, 112; operation of vehicles, 173; history and growth of Printing Bureau, 279; cost of new building, 279, 293; comparative printing sales, 280; departmental

organization, 281; services provided to clientèle, 284; parliamentary printing, 284, 287, 289; size and role of Printing Bureau, 287; charges made for captive work, 289; efficiency, 290; Plant Studies, 291; accounting standards and costs, 291-294; form of organization required, 295; recruiting procedures, 296; recommendations, 294; 295, 297, 300, 302, 304, 306, 307; *see also Queen's Printer and Queen's Publisher.*

PUBLIC SERVICE, transportation costs, 151.

PUBLIC WORKS ACT, 34; Defence Production exempted, 49.

PUBLIC WORKS, DEPARTMENT OF, real property operations, 26, 28; property records, 30; responsibility for real property acquisition, inventory, maintenance and management, 35, 36; national parks property transactions, 40; monopoly of construction activity and competitors, 41; operates three construction branches, 42; "roads to resources" programme, 42; volume of activities, table 2, 43; new role with new areas of responsibility, 65; centralization of construction, 65; functions to be discontinued, 66; decentralization and field organization, 67; purchasing and supply, 77, 86; procurement centralized, 78; specification, 86, 87; inspection, 87; appraisal of existing central purchasing agencies, 95; departmental warehousing organization, 112; exceptions to departmental purchasing, 90; operation of watercraft, 183; planning and administration of telecommunications services, 232; real property maintenance, 331-333; food services, 342.

PUBLISHING, parliamentary printing priority, 287, 288; process defined, 298; interdepartmental Committee on Publications, 299; a Queen's Publisher, 300; recommendations, 306.

PURCHASING, objectives, 77, 78; regulation, 82; number and location of purchasing offices, 83; geographical centralization, 86; determination of requirements, 86; organization, 87; transfer, lease or loan, 91; cash discounts, 92; requirement determination, 92; Canadian Government Specification Board, 92, 93; delivery intervals, 93; tendering practices, 94; purchasing expense, 94; existing central purchasing agencies, 95;

routine transfer methods, 96; conclusions, 96; use of outside facilities, 321.

PURCHASING AND SUPPLY, 71-142.

PURCHASING AND SUPPLY, DEPARTMENT OF, establishment recommended, 141; transportation and supply, 162; traffic advisory group, 162.

PURCHASING POLICY, transportation and supply, 160.

Q

QUEBEC CIVIL CODE, 383.

QUEBEC LEGISLATIVE ASSEMBLY, lawn federally owned, 32.

QUEBEC, PROVINCE OF, prosecutors and legal agents, 373.

QUEEN'S PRINTER, his future role, 298-300; methods of distribution used, 300; sales of publications, 301, 302; free distribution, 302; financing of government publications, 303, 304; procurement of print, 304-306; relation with proposed Department of Purchasing and Supply, 306.

QUEEN'S PUBLISHER, creation of new office recommended, 300; procurement of print, 304, 305, 306; relation with proposed Department of Purchasing and Supply, 306, 307.

R

R. A., *see Ottawa Civil Service Recreational Association.*

RAILWAY PASSES, travel and removal, 165.

REAL PROPERTY, land, 28; condemnation and abandonment, 32; responsibility for management, 35, 36; construction, 41; property operations, 54; National Defence, 60; the new role of Public Works, 65, 331-333; Department of Northern Affairs and National Resources, 333-335; National Capital Commission, 335; Department of Veterans Affairs, 336; Department of National Defence, 357.

RECOMMENDATIONS,

REAL PROPERTY, acquisition, disposal, leasing and use of land, 35; national parks policy, future goals and administration suggested, 40; planning and supervision of construction for civil departments and for National Defence, 47, 48; real property management, 58; administration

of Municipal Grants Act, 59; charges to departments and agencies for accommodation and real property services, 59; real property bureau under Deputy Minister of National Defence, 64; functions of Defence Construction Limited transferred, 64.

PURCHASING AND SUPPLY, a central purchasing agency, 139-141; Department of Purchasing and Supply, 141; standards specifications, 142; warehousing services, 142; ordering patterns, inventory levels and surplus stocks, 142; revolving fund for procurement financing, 142.

TRANSPORTATION, central traffic management, 159; Traffic Advisory Board suggested, 162; negotiations for fixed travel rates, 165; overseas travel, 165; revision of travel regulations, 167, common use of messenger and truck services, 172; Armed Forces passenger vehicles, 173; Government Motor Vehicle Committee, 179; harbour launches, 184; methods of supply to coastal stations, 185; patrol cutter operations, 187; consolidation of all large vessels and husbanding facilities, 195; training programme for seamen; Department of Transport advice and assistance, 195; Board of Steamship Inspection technical services, 196; major air frame overhaul work, 201; R.C.M.P. Air Division headquarters, 202; military transport, 207.

TELECOMMUNICATIONS, an Administrative Telecommunications Agency, 232; Armed Services teletype relay networks, 239; Mid-Canada Line and Adcom value and facilities, 243; teletype services to points outside Canada, 246; telecommunication needs of the North, 248; formulation of telecommunications policies and co-ordination of technical services, 253, 254, 255.

PRINTING AND PUBLISHING, Printing Bureau facilities limited, 290; printing production efficiency, 292; Printing Bureau operations and rental costs, 294; field printing units centralized, 295; separate industrial activity under Director of Printing, 297; a Queen's Publisher, 300; financing of government publications,

306; procurement of office machines, stationery and forms, 307; ministerial responsibility for publishing and printing, 307.

THE "MAKE OR BUY" PROBLEM, secondary activities and use of private sources, costs analyses and investigations, 323; review of workshop facilities, 330; contracting out of maintenance of real property, 336; contracting out to private industries, 341; living accommodation and food services, 344; use of outside facilities for staging, film-making and video-tape activities, 348; role of Eldorado Mining and Refining Limited, 351; repair and maintenance of military material, 357; maintenance of Northwest Highway, 357; National Defence supporting services, 358; National Defence transport plans and practices, 359.

LEGAL SERVICES, international legal work of departments and agencies, 416; integrated legal service and field legal branches, 421.

RECORDS AND COST CONTROL, the operation of vehicles, 177.

REGULATIONS, necessity, 384; responsibility for making, 385; consolidation, 385; annual cost, 385.

REMOVAL, TRAVEL AND, travel services, 164; rates, 165; control and review of travel expense claims, 166; movement of household effects, 166.

RENTALS, for Government properties in 1961, table 5, 56; for telecommunications lines and equipment, 219.

REPAIRS, of vehicles in penal institutions, 176; of watercraft, 191.

RESERVES, Indian and forest, 31.

REVOLVING FUND, financing of procurement and of warehousing activities, 142; Printing Bureau.

ROADS, maintenance of, 333.

ROMAN CATHOLIC MISSION COMMUNICATIONS SYSTEM, 247.

ROYAL CANADIAN AIR FORCE, Directorate of Interservice Development, 93; inventories, 134; operation of aircraft, 197; teletype circuit, 229; air traffic control telephone, 234; Main Communications Relay Network, 237; maintenance workshops, 329.

- ROYAL CANADIAN ARMY, Signal Corps, 238; Electrical and Mechanical Engineers, 356; Service Corps, 358.
- ROYAL CANADIAN MOUNTED POLICE, operation of vehicles, 168; use of vehicles, 170; of watercraft, 183; recommendations, 187; operation of aircraft, 197; radio network, 218; communications operators, 219; Telex service, 230, 231; means of telecommunications for police action, 243, 244; radio network in the North, 247; tailor shops, 341; criminal proceedings, 371.
- ROYAL CANADIAN NAVY, inventories, 134; operation of watercraft, 181, 188; shore-to-ship communications, 235; Strategic Communication System, 237; operation of dockyards, 354.
- S
- SAGE, 242.
- SECONDARY ACTIVITIES, definition and problems, 318; means of control, 322; recommendations, 323.
- SECRETARY OF STATE, Ministerial head, Printing Bureau, 282.
- SECURITY, government communications, 222; air traffic control, 224; inappropriate methods of transmission, 222; in External Affairs telecommunications, 245.
- SERVICE PENSION BOARD, 391.
- SERVICES AND GOODS, expenditures on, 317; "make rather than buy" basis for, 319; self-provided services, 319; purchasing procedures, 321.
- SHIP REPAIRS, personnel employed by the Royal Canadian Navy, 355.
- SOLICITORS, departmental, 398; recruitment of, 401.
- SPECIFICATIONS, purchasing and supply, 97.
- STAFF, distribution of Printing Bureau staff—1961, table 2, 280.
- STANDARDIZATION, LACK OF, 88.
- STANDARDS, Advisory Committee on Accommodation Standards of the Treasury Board, 53.
- STANDARD SPECIFICATIONS, conclusions and recommendations, 141.
- STATIONERY, departmental warehousing organization, 112; responsibility for procurement, 307.
- STATUTES OF CANADA, 282, 289, 303; drafting of, 383; juridical accuracy of the French version, 384; consolidations, 384.
- STORAGE, materials management, 110.
- SUPPORTING SERVICES, a means to an end, 13; cost to be borne by user department, 15; standards assessed by Treasury Board, 16; senior management and decentralization, 16.
- SURPLUS CROWN ASSETS ACT, 31, 90, 96.
- T
- TAILOR SHOPS, (R.C.M.P.), 340.
- TAX APPEAL BOARD, handling civil litigation, 381.
- TAXATION DIVISION, Department of National Revenue, institution of prosecution, 372; civil litigation, 380-382.
- TAX LITIGATION, 381.
- TECHNOLOGY, progress and planning in telecommunications, 223.
- TELECOMMUNICATIONS, 211-268; function, 217-226; general administrative communications, 227-233; administrative agency recommended, 232; special communications needs and systems, 233-250; overlapping and duplication of existing facilities and absence of standardization, 248; central direction and co-ordination, 251-255.
- TELEGRAPH AND TELETYPE, 229, 230.
- TELEPHONE, Government Telephone Service Office, 228; integration of service, 230.
- TELEVISION, staging of programmes and supporting services, 345.
- TELEVISION AND FILM, Canadian Broadcasting Corporation, 345-347; National Film Board, 347, 348; recommendations, 348.
- TELEX, 218, 229, 230, 244, 246.
- TENDERS, public invitation to tender for construction, 52; regulation of purchasing, 82, 88; procurement of print, 304; appraisal of practices, 94, 321.
- THE NORTH, special problems of communications, 246-248; consultation with the communication industry suggested, 249.
- TIMBER PERMITS AND ROYALTIES, parks' national resources, 38.
- TOURISM, in federal parks, 38.
- TRADE AND COMMERCE, DEPARTMENT OF, real property operations, 26, 28; construction

activities, 44; travel and removal, 164; movement of household effects, 166; departmental investigators, 371.

TRAFFIC ADVISORY GROUP, transportation and supply, 161, 162.

TRAFFIC MANAGEMENT, freight, express and cartage, 157.

TRANSATLANTIC CABLES, 235, 239.

TRANS-CANADA AIR LINES, operation of aircraft, 206; telecommunications operations, 217; experience in leasing practices, 248.

TRANS-CANADA HIGHWAY ACT, administered by Department of Public Works, 42.

TRANSLATION, inadequate co-ordination for printing production, 285.

TRANSPORTATION, 143-207; purchase of services, 153; operation of facilities, 153; freight, express and cartage, 154, 160; travel and removal, 164; operation of vehicles, 168; of watercraft, 180; of aircraft, 197; Royal Canadian Army Service Corps, 358; Air Transport Command, 359.

TRANSPORT, DEPARTMENT OF, real property operations, 26, 28, 30; building of aerodromes, 61; purchasing arrangements, 97; freight, express and cartage, 154; operation of vehicles, 168; vessel management, 188; husbanding, 190; repairs and refits, 191, 193; watercraft management, 195; recommendation, 195; operation of aircraft, 197, 198; transmission systems, 218; communications operators, 219; use of specialized telecommunications, 233; Telecommunications and Electronics Branch, 234; Communications facilities in the North, 247; source of advice on operations of telecommunications services, 251; workshops, Marine Services, 328; Air Services, 329; inspection of vessels, 339.

TRAVEL, travel services, 164; rates, 165; control and review of travel expense claims, 166; movement of household effects, 166.

TREASURY BOARD, general standards of supporting services assessed by, 16; Advisory Committee on Accommodation Abroad, 44; acceptance or rejection of construction programmes, 48, 52; Advisory Committee on Accommodation Standards, 53; regulation of purchasing and supply, 77; purchase contracts, 83; purchasing organization, 87;

appraisal of delivery intervals, 93; transportation and supply, 161, 162; control and review of travel expense claims, 166; operation of vehicles, 169, 170, 179; new ship construction, standards for vessel operation and pay for seafarers, 195; control and co-ordination of telecommunications expenditures, 225; assessment of telecommunications management by departments, 253; secondary activities, 323; approval for settlement of claims, 375.

U

UNDERWRITERS ADJUSTMENT BUREAU LIMITED, claims report, 378.

UNEMPLOYMENT INSURANCE COMMISSION, Telex installations, 230, 231.

UNITED KINGDOM, selection of contractors for public works, 51; nature of defence procurement, 118, 120.

UNITED NATIONS, travel and removal, 165; publications sold by Queen's Printer, 282.

UNITED STATES, General Services Administration, 14, 15; nature of defence procurement, 118, 119; Federal Communications Commission, 245.

UNITED STATES AIR FORCE, telecommunications with R.C.A.F. air defence centres, 234; transmission circuits in the North, 247.

UPLANDS AIRPORT, 329.

URANIUM, future of industry, 351.

URANIUM CITY, SASKATCHEWAN, 350.

V

VACANT SPACE, no regular report made, 57.

VEHICLES, operations, 169; purchase and replacement, 169; pooling of vehicles, 171; ownership or hire, 173; official use of employees' vehicles, 173; maintenance and repair, 174; repairs in penal institutions, 176; records and cost control, 177; redefinition of functions, 178; recommendation, 179.

VETERANS AFFAIRS, DEPARTMENT OF, purchasing and supply, 77; purchasing expense, 90; travel and removal, 164; real property maintenance, 336; manufacturing activities, 339, 340; operating laundries, 340.

VIDEO-TAPE PRODUCTION, 346.

W

WAGES, Printing Bureau, 278, 296.

WAREHOUSING, departmental organization, 112; appraisal of civil materials management, 113, 114; recommendation, 141.

WATCHKEEPING VESSELS, operation of watercraft, 184.

WATERCRAFT, operations, 180; distribution and functions of vessels, 181; control and utilization, 183; ownership or charter, 185; reallocation of functions, 186; operating methods and standards, 188; management, 188; manning, 189; husbanding, 190; repairs and refits, 191; accounting and cost control, 193; consolidation of watercraft management, 194.

WESTERN CANADA, federal parks headquarters, 39.

WIDE AREA TELEPHONE SERVICE, 229.

WINTER WORKS, 50.

WOOD BUFFALO NATIONAL PARK, 36.

WORKSHOPS, general, 325, 326; National Research Council, 326; Department of Mines and Technical Surveys—Mines Branch, 327; Department of Transport—Marine Services, 328; Air Services, 329; others, 329; recommendations, 330.

Y

YUKON TERRITORY, administration of justice in, 373.

The series of reports

SUPPORTING SERVICES FOR GOVERNMENT

is continued in Volume 3:

- 12 ECONOMIC AND STATISTICAL SERVICES
- 13 PUBLIC INFORMATION SERVICES



Government
Publications

1930-1931
1931-1932
1932-1933

RECEIVED DEPT. DEC 14 1962

Government
Publications

STACK
COPY

JI Canada. Royal Commission on
95 Government Organization
A5712 [Report]
v.2 v.2.

CALL NO: AUTHOR:

CAI
Z1
66002 R.C.G.O.
TITLE:

VOL:

DATE CHARGED:

**PLEASE DO NOT REMOVE
SLIPS FROM THIS POCKET**

Decatalogued

**UNIVERSITY OF TORONTO
LIBRARY**

